

110TH CONGRESS  
1ST SESSION

# H. R. 3221

Moving the United States toward greater energy independence and security, developing innovative new technologies, reducing carbon emissions, creating green jobs, protecting consumers, increasing clean renewable energy production, and modernizing our energy infrastructure.

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## IN THE HOUSE OF REPRESENTATIVES

JULY 30, 2007

Ms. PELOSI (for herself, Mr. HOYER, Mr. CLYBURN, Mr. EMANUEL, Mr. LARSON of Connecticut, Ms. DELAURO, Mr. VAN HOLLEN, Mr. BECERRA, Mr. DINGELL, Mr. RANGEL, Mr. GEORGE MILLER of California, Mr. WAXMAN, Mr. OBERSTAR, Mr. RAHALL, Mr. LANTOS, Mr. GORDON of Tennessee, Mr. PETERSON of Minnesota, Ms. VELÁZQUEZ, and Mr. MARKEY) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Education and Labor, Foreign Affairs, Small Business, Science and Technology, Agriculture, Oversight and Government Reform, Natural Resources, Transportation and Infrastructure, and Armed Services, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

Moving the United States toward greater energy independence and security, developing innovative new technologies, reducing carbon emissions, creating green jobs, protecting consumers, increasing clean renewable energy production, and modernizing our energy infrastructure.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the  
 3 “New Direction for Energy Independence, National Secu-  
 4 rity, and Consumer Protection Act”.

5 (b) TABLE OF CONTENTS.—The table of contents for  
 6 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—GREEN JOBS

Sec. 1001. Short title.

Sec. 1002. Energy efficiency and renewable energy worker training program.

TITLE II—INTERNATIONAL CLIMATE COOPERATION RE-  
 ENGAGEMENT ACT OF 2007

Sec. 2001. Short title.

Sec. 2002. Definitions.

Subtitle A—United States Policy on Global Climate Change

Sec. 2101. Congressional findings.

Sec. 2102. Congressional statement of policy.

Sec. 2103. Office on Global Climate Change.

Subtitle B—Assistance to Promote Clean and Efficient Energy Technologies  
 in Foreign Countries

Sec. 2201. Congressional findings.

Sec. 2202. United States assistance for developing countries.

Sec. 2203. United States exports and outreach programs for India, China, and  
 other countries.

Sec. 2204. United States trade missions to encourage private sector trade and  
 investment.

Sec. 2205. Actions by Overseas Private Investment Corporation.

Sec. 2206. Actions by United States Trade and Development Agency.

Sec. 2207. Global Climate Change Exchange program.

Sec. 2208. Interagency Working Group to support a Clean Energy Technology  
 Exports Initiative.

Subtitle C—International Clean Energy Foundation

Sec. 2301. Definitions.

Sec. 2302. Establishment and management of Foundation.

Sec. 2303. Duties of Foundation.

Sec. 2304. Annual report.

Sec. 2305. Powers of the Foundation; related provisions.

Sec. 2306. General personnel authorities.

Sec. 2307. Authorization of appropriations.

TITLE III—SMALL ENERGY EFFICIENT BUSINESSES

- Sec. 3001. Short title.
- Sec. 3002. Findings.
- Sec. 3003. Larger 504 loan limits to help business develop energy efficient technologies and purchases.
- Sec. 3004. Reduced 7(a) fees and higher loan guarantees for purchase of energy efficient technologies.
- Sec. 3005. Small Business Sustainability Initiative.
- Sec. 3006. Small Business Administration to educate and promote energy efficiency ideas to small businesses and work with the small business community to make such information widely available.
- Sec. 3007. Energy saving debentures.
- Sec. 3008. Investments in energy saving small businesses.
- Sec. 3009. Renewable fuel capital investment company.
- Sec. 3010. Study and report.

#### TITLE IV—SCIENCE AND TECHNOLOGY

##### Subtitle A—Advanced Research Projects Agency-Energy

- Sec. 4001. Advanced Research Projects Agency-Energy.
- Sec. 4002. Fund.
- Sec. 4003. Advice.
- Sec. 4004. ARPA-E evaluation.
- Sec. 4005. Savings clause.

##### Subtitle B—Marine Renewable Energy Technologies

- Sec. 4101. Short title.
- Sec. 4102. Findings.
- Sec. 4103. Definitions.
- Sec. 4104. Marine renewable energy research and development.
- Sec. 4105. National Marine Renewable Energy Research, Development, and Demonstration Centers.
- Sec. 4106. Applicability of other laws.
- Sec. 4107. Authorization of appropriations.

##### Subtitle C—Geothermal Energy

- Sec. 4201. Short title.
- Sec. 4202. Findings.
- Sec. 4203. Definitions.
- Sec. 4204. Hydrothermal research and development.
- Sec. 4205. General geothermal systems research and development.
- Sec. 4206. Enhanced geothermal systems research and development.
- Sec. 4207. Geothermal energy production from oil and gas fields and recovery and production of geopressured gas resources.
- Sec. 4208. Cost sharing and proposal evaluation.
- Sec. 4209. Centers for Geothermal Technology Transfer.
- Sec. 4210. GeoPowering America.
- Sec. 4211. Educational pilot program.
- Sec. 4212. Reports.
- Sec. 4213. Applicability of other laws.
- Sec. 4214. Authorization of appropriations.

##### Subtitle D—Solar Energy

- Sec. 4301. Short title.

- Sec. 4302. Definitions.
- Sec. 4303. Thermal energy storage research and development program.
- Sec. 4304. Concentrating solar power commercial application studies.
- Sec. 4305. Solar energy curriculum development and certification grants.
- Sec. 4306. Daylighting systems and direct solar light pipe technology.
- Sec. 4307. Solar Air Conditioning Research and Development Program.
- Sec. 4308. Photovoltaic demonstration program.

#### Subtitle E—Biofuels

- Sec. 4401. Short title.
- Sec. 4402. Biofuels and biorefinery information center.
- Sec. 4403. Biofuels and advanced biofuels infrastructure.
- Sec. 4404. Biodiesel.
- Sec. 4405. Biogas.
- Sec. 4406. Bioresearch centers for systems biology program.
- Sec. 4407. Grants for biofuel production research and development in certain States.
- Sec. 4408. Biorefinery energy efficiency.
- Sec. 4409. Study of increased consumption of ethanol-blended gasoline with higher levels of ethanol.
- Sec. 4410. Study of optimization of flexible fueled vehicles to use E-85 fuel.
- Sec. 4411. Study of engine durability and performance associated with the use of biodiesel.
- Sec. 4412. Bioenergy research and development, authorization of appropriation.
- Sec. 4413. Environmental research and development.
- Sec. 4414. Study of optimization of biogas used in natural gas vehicles.
- Sec. 4415. Standards for biofuels dispensers.
- Sec. 4416. Algal biomass.

#### Subtitle F—Carbon Capture and Storage

- Sec. 4501. Short title.
- Sec. 4502. Carbon capture and storage research, development, and demonstration program.
- Sec. 4503. Review of large-scale programs.
- Sec. 4504. Safety research.
- Sec. 4505. Geological sequestration training and research.
- Sec. 4506. University based research and development grant program.

#### Subtitle G—Global Change Research

- Sec. 4601. Short title.

#### PART 1—GLOBAL CHANGE RESEARCH

- Sec. 4611. Findings and purpose.
- Sec. 4612. Definitions.
- Sec. 4613. Interagency cooperation and coordination.
- Sec. 4614. United States Global Change Research Program.
- Sec. 4615. National Global Change Research and Assessment Plan.
- Sec. 4616. Budget coordination.
- Sec. 4617. Vulnerability assessment.
- Sec. 4618. Policy assessment.
- Sec. 4619. Annual report.
- Sec. 4620. Relation to other authorities.
- Sec. 4621. Repeal.

- Sec. 4622. Global change research information.
- Sec. 4623. Ice sheet study and report.
- Sec. 4624. Hurricane frequency and intensity study and report.

#### PART 2—CLIMATE AND OTHER GLOBAL CHANGE DATA MANAGEMENT

- Sec. 4631. Findings and purposes.
- Sec. 4632. Definitions.
- Sec. 4633. Interagency climate and other global change data management working group.

#### TITLE V—AGRICULTURE ENERGY

- Sec. 5001. Table of contents.
- Sec. 5002. Federal procurement of biobased products.
- Sec. 5003. Loan guarantees for biorefineries and biofuel production plants.
- Sec. 5004. Biodiesel fuel education program.
- Sec. 5005. Energy audit and renewable energy development program.
- Sec. 5006. Renewable energy systems and energy efficiency improvements.
- Sec. 5007. Biomass Research and Development Act of 2000.
- Sec. 5008. Adjustments to the bioenergy program.
- Sec. 5009. Research, extension, and educational programs on biobased energy technologies and products.
- Sec. 5010. Energy Council of the Department of Agriculture.
- Sec. 5011. Forest bioenergy research program.

#### TITLE VI—CARBON-NEUTRAL GOVERNMENT

- Sec. 6001. Short title.
- Sec. 6002. Findings.

##### Subtitle A—Federal Government Inventory and Management of Greenhouse Gas Emissions

- Sec. 6101. Inventory of Federal Government Greenhouse Gas Emissions.
- Sec. 6102. Management of Federal Government Greenhouse Gas Emissions.
- Sec. 6103. Pilot project for purchase of offsets and certificates.
- Sec. 6104. Impact on agency's primary mission.
- Sec. 6105. Savings Clause.
- Sec. 6106. Definitions.
- Sec. 6107. Authorization of appropriations.

##### Subtitle B—Federal Government Energy Efficiency

- Sec. 6201. Federal vehicle fleets.
- Sec. 6202. Agency analyses for mobility acquisitions.
- Sec. 6203. Federal procurement of energy efficient products.
- Sec. 6204. Federal building energy efficiency performance standards.
- Sec. 6205. Management of Federal building efficiency.
- Sec. 6206. Leasing.
- Sec. 6207. Procurement and acquisition of alternative fuels.
- Sec. 6208. Contracts for renewable energy for executive agencies.
- Sec. 6209. Government Efficiency Status Reports.
- Sec. 6210. OMB Government Efficiency Reports and Scorecards.
- Sec. 6211. Authorization of appropriations.
- Sec. 6212. Judicial review.

#### TITLE VII—NATURAL RESOURCES COMMITTEE PROVISIONS

Sec. 7001. Short title.

Subtitle A—Energy Policy Act of 2005 Reforms

- Sec. 7101. Fiscally responsible energy amendments.  
 Sec. 7102. Extension of deadline for consideration of applications for permits.  
 Sec. 7103. Oil shale and tar sands leasing.  
 Sec. 7104. Limitation of rebuttable presumption regarding application of categorical exclusion under NEPA for oil and gas exploration and development activities.  
 Sec. 7105. Best management practices.  
 Sec. 7106. Federal consistency appeals.

Subtitle B—Federal Energy Public Accountability, Integrity, and Public Interest

CHAPTER 1—ACCOUNTABILITY AND INTEGRITY IN THE FEDERAL ENERGY PROGRAM

- Sec. 7201. Audits.  
 Sec. 7202. Fines and penalties.

CHAPTER 2—AMENDMENTS TO FEDERAL OIL AND GAS ROYALTY MANAGEMENT ACT OF 1982

- Sec. 7211. Amendments to definitions.  
 Sec. 7212. Interest.  
 Sec. 7213. Obligation period.  
 Sec. 7214. Tolling agreements and subpoenas.  
 Sec. 7215. Liability for royalty payments.

CHAPTER 3—PUBLIC INTEREST IN THE FEDERAL ENERGY PROGRAM

- Sec. 7221. Surface owner protection.  
 Sec. 7222. Onshore oil and gas reclamation and bonding.  
 Sec. 7223. Protection of water resources.  
 Sec. 7224. Due diligence fee.

CHAPTER 4—WIND ENERGY

- Sec. 7231. Wind Turbine Guidelines Advisory Committee.  
 Sec. 7232. Authorization of appropriations for research to study wind energy impacts on wildlife.  
 Sec. 7233. Enforcement.  
 Sec. 7234. Savings clause.

CHAPTER 5—ENHANCING ENERGY TRANSMISSION

- Sec. 7241. Power Marketing Administrations report.

Subtitle C—Alternative Energy and Efficiency

- Sec. 7301. State ocean and coastal alternative energy planning.  
 Sec. 7302. Canal-side power production at Bureau of Reclamation projects.  
 Sec. 7303. Increasing energy efficiencies for water desalination.  
 Sec. 7304. Establishing a pilot program for the development of strategic solar reserves on Federal lands.  
 Sec. 7305. OTEC regulations.  
 Sec. 7306. Biomass utilization pilot program.

Sec. 7307. Programmatic environmental impact statement.

Subtitle D—Carbon Capture and Climate Change Mitigation

CHAPTER 1—GEOLOGICAL SEQUESTRATION ASSESSMENT

Sec. 7401. Short title.

Sec. 7402. National assessment.

CHAPTER 2—TERRESTRIAL SEQUESTRATION ASSESSMENT

Sec. 7421. Requirement to conduct an assessment.

Sec. 7422. Methodology.

Sec. 7423. Completion of assessment and report.

Sec. 7424. Authorization of appropriations.

CHAPTER 3—SEQUESTRATION ACTIVITIES

Sec. 7431. Carbon dioxide storage inventory.

Sec. 7432. Framework for geological carbon sequestration on Federal lands.

CHAPTER 4—NATURAL RESOURCES AND WILDLIFE PROGRAMS

SUBCHAPTER A—NATURAL RESOURCES MANAGEMENT AND CLIMATE CHANGE

Sec. 7441. Natural Resources Management Council on Climate Change.

SUBCHAPTER B—NATIONAL POLICY AND STRATEGY FOR WILDLIFE

Sec. 7451. Short title.

Sec. 7452. National policy on wildlife and global warming.

Sec. 7453. Definitions.

Sec. 7454. National strategy.

Sec. 7455. Advisory board.

Sec. 7456. Authorization of appropriations.

SUBCHAPTER C—STATE AND TRIBAL WILDLIFE GRANTS PROGRAM

Sec. 7461. State and Tribal Wildlife Grants Program.

CHAPTER 5—OCEAN PROGRAMS

Sec. 7471. Ocean Policy, Global Warming, and Acidification Program.

Sec. 7472. Planning for climate change in the coastal zone.

Sec. 7473. Enhancing climate change predictions.

Subtitle E—Royalties Under Offshore Oil and Gas Leases

Sec. 7501. Short title.

Sec. 7502. Price thresholds for royalty suspension provisions.

Sec. 7503. Clarification of authority to impose price thresholds for certain lease sales.

Sec. 7504. Eligibility for new leases and the transfer of leases; conservation of resources fees.

Sec. 7505. Repeal of certain taxpayer subsidized royalty relief for the oil and gas industry.

Subtitle F—Additional Provisions

Sec. 7601. Oil shale community impact assistance.

- Sec. 7602. Additional notice requirements.
- Sec. 7603. Davis-Bacon Act.
- Sec. 7604. Roan Plateau, Colorado.

#### TITLE VIII—TRANSPORTATION AND INFRASTRUCTURE

- Sec. 8001. Short title.
- Sec. 8002. Findings and purposes.

##### Subtitle A—Department of Transportation

- Sec. 8101. Center for climate change and environment.

##### Subtitle B—Highways and Transit

###### PART 1—PUBLIC TRANSPORTATION

- Sec. 8201. Grants to improve public transportation services.
- Sec. 8202. Increased Federal share for Clean Air Act compliance.
- Sec. 8203. Commuter rail transit enhancement.

###### PART 2—FEDERAL-AID HIGHWAYS

- Sec. 8251. Increased Federal share for CMAQ projects.
- Sec. 8252. Distribution of rescissions.
- Sec. 8253. Sense of Congress regarding use of complete streets design techniques.

##### Subtitle C—Railroad and Pipeline Transportation

###### PART 1—RAILROADS

- Sec. 8301. Advanced technology locomotive grant pilot program.
- Sec. 8302. Capital grants for railroad track.

###### PART 2—PIPELINES

- Sec. 8311. Feasibility studies.

##### Subtitle D—Maritime Transportation

###### PART 1—GENERAL PROVISIONS

- Sec. 8401. Short sea transportation initiative.
- Sec. 8402. Short sea shipping eligibility for capital construction fund.
- Sec. 8403. Report.

###### PART 2—MARITIME POLLUTION

- Sec. 8451. References.
- Sec. 8452. Definitions.
- Sec. 8453. Applicability.
- Sec. 8454. Administration and enforcement.
- Sec. 8455. Certificates.
- Sec. 8456. Reception facilities.
- Sec. 8457. Inspections.
- Sec. 8458. Amendments to the protocol.
- Sec. 8459. Penalties.
- Sec. 8460. Effect on other laws.

## Subtitle E—Aviation

Sec. 8501. Environmental mitigation pilot program.

## Subtitle F—Public Buildings

## PART 1—GENERAL SERVICES ADMINISTRATION

Sec. 8601. Public building energy efficient and renewable energy systems.

Sec. 8602. Public building life-cycle costs.

Sec. 8603. Installation of photovoltaic system at department of energy headquarters building.

## PART 2—COAST GUARD

Sec. 8631. Prohibition on incandescent lamps by Coast Guard.

## PART 3—ARCHITECT OF THE CAPITOL

Sec. 8651. Capitol complex photovoltaic roof feasibility study.

Sec. 8652. Capitol complex E-85 refueling station.

Sec. 8653. Energy and environmental measures in Capitol complex master plan.

Sec. 8654. Capitol Power Plant.

## Subtitle G—Water Resources and Emergency Management Preparedness

## PART 1—WATER RESOURCES

Sec. 8701. Policy of the United States.

Sec. 8702. 21st Century Water Commission.

Sec. 8703. Study of Potential Impacts of Climate Change on Water Resources and Water Quality.

Sec. 8704. Impacts of climate change on Corps of Engineers projects.

## PART 2—EMERGENCY MANAGEMENT

Sec. 8731. Effects of climate change on FEMA preparedness, response, recovery, and mitigation programs.

## TITLE IX—ENERGY AND COMMERCE

## Subtitle A—Promoting Energy Efficiency

Sec. 9000. Short title.

## PART 1—APPLIANCE EFFICIENCY

Sec. 9001. Energy standards for home appliances.

Sec. 9002. Electric motor efficiency standards.

Sec. 9003. Residential boilers.

Sec. 9004. Regional variations in heating or cooling standards.

Sec. 9005. Procedure for prescribing new or amended standards.

Sec. 9006. Expediting appliance standards rulemakings.

Sec. 9007. Correction of large air conditioner rule issuance constraint.

Sec. 9008. Definition of energy conservation standard.

Sec. 9009. Improving schedule for standards updating and clarifying State authority.

Sec. 9010. Updating appliance test procedures.

- Sec. 9011. Furnace fan standard process.
- Sec. 9012. Technical corrections.
- Sec. 9013. Energy efficient standby power devices.
- Sec. 9014. External power supply efficiency standards.
- Sec. 9015. Standby mode.

#### PART 2—LIGHTING EFFICIENCY

- Sec. 9021. Efficient light bulbs.
- Sec. 9022. Incandescent reflector lamps.
- Sec. 9023. Use of energy efficient lighting fixtures and bulbs.

#### PART 3—RESIDENTIAL BUILDING EFFICIENCY

- Sec. 9031. Encouraging stronger building codes.
- Sec. 9032. Energy code improvements applicable to manufactured housing.
- Sec. 9033. Baseline building designs.
- Sec. 9034. Reauthorization of weatherization assistance program.

#### PART 4—COMMERCIAL AND FEDERAL BUILDING EFFICIENCY

- Sec. 9041. Definitions.
- Sec. 9042. High-performance green Federal buildings.
- Sec. 9043. Commercial high-performance green buildings.
- Sec. 9044. Zero-energy commercial buildings initiative.
- Sec. 9045. Public outreach.
- Sec. 9046. Federal procurement.
- Sec. 9047. Management of energy and water efficiency in Federal buildings.
- Sec. 9048. Demonstration project.
- Sec. 9049. Energy efficiency for data center buildings.
- Sec. 9050. Authorization of appropriations.
- Sec. 9051. Study and report on use of power management software.
- Sec. 9052. High-performance green buildings retrofit loan guarantees.

#### PART 5—INDUSTRIAL ENERGY EFFICIENCY

- Sec. 9061. Industrial energy efficiency.

#### PART 6—ENERGY EFFICIENCY OF PUBLIC INSTITUTIONS

- Sec. 9071. Short title.
- Sec. 9072. Findings.
- Sec. 9073. Definitions.
- Sec. 9074. Technical Assistance Program.
- Sec. 9075. Revolving Fund.
- Sec. 9076. Reauthorization of State energy programs.

#### PART 7—ENERGY SAVINGS PERFORMANCE CONTRACTING

- Sec. 9081. Definition of energy savings.
- Sec. 9082. Financing flexibility.
- Sec. 9083. Authority to enter into contracts; reports.
- Sec. 9084. Permanent reauthorization.
- Sec. 9085. Training Federal contracting officers to negotiate energy efficiency contracts.
- Sec. 9086. Promoting long-term energy savings performance contracts and verifying savings.

## PART 8—ADVISORY COMMITTEE ON ENERGY EFFICIENCY FINANCING

Sec. 9089. Advisory committee.

## PART 9—ENERGY EFFICIENCY BLOCK GRANT PROGRAM

Sec. 9091. Definitions.  
 Sec. 9092. Establishment of program.  
 Sec. 9093. Allocations.  
 Sec. 9094. Eligible activities.  
 Sec. 9095. Requirements.  
 Sec. 9096. Review and evaluation.  
 Sec. 9097. Technical Assistance and Education Program.  
 Sec. 9098. Authorization of appropriations.

## Subtitle B—Smart Grid Facilitation

Sec. 9101. Short title.

## PART 1—SMART GRID

Sec. 9111. Statement of policy on modernization of electricity grid.  
 Sec. 9112. Grid Modernization Commission.  
 Sec. 9113. Grid assessment and report.  
 Sec. 9114. Federal matching fund for smart grid investment costs.  
 Sec. 9115. Smart Grid technology deployment.  
 Sec. 9116. Smart Grid Information Requirements.  
 Sec. 9117. State consideration of incentives for Smart Grid.  
 Sec. 9118. DOE study of security attributes of Smart Grid systems.

## PART 2—DEMAND RESPONSE

Sec. 9121. Electricity sector demand response.

## Subtitle C—Loan Guarantees

Sec. 9201. Amount of loans guaranteed.  
 Sec. 9202. Exclusion of categories.

## Subtitle D—Renewable Fuel Infrastructure and International Cooperation

## PART 1—RENEWABLE FUEL INFRASTRUCTURE

Sec. 9301. Renewable fuel infrastructure development.  
 Sec. 9302. Prohibition on franchise agreement restrictions related to renewable fuel infrastructure.  
 Sec. 9303. Renewable fuel dispenser requirements.  
 Sec. 9304. Pipeline feasibility study.  
 Sec. 9305. Study of ethanol-blended gasoline with greater levels of ethanol.  
 Sec. 9306. Study of the adequacy of railroad transportation of domestically-produced renewable fuel.  
 Sec. 9307. Standard specifications for biodiesel.  
 Sec. 9308. Grants for cellulosic ethanol production.  
 Sec. 9309. Consumer education campaign relating to flexible-fuel vehicles.  
 Sec. 9310. Review of new renewable fuels or new renewable fuel additives.  
 Sec. 9311. Domestic manufacturing conversion grant program.  
 Sec. 9312. Cellulosic ethanol and biofuels research.  
 Sec. 9313. Federal fleet fueling centers.

- Sec. 9314. Study of impact of increased renewable fuel use.  
 Sec. 9315. Grants for renewable fuel production research and development in certain States.  
 Sec. 9316. Study of effect of oil prices.  
 Sec. 9317. Biodiesel as alternative fuel for CAFÉ purposes.

PART 2—UNITED STATES-ISRAEL ENERGY COOPERATION

- Sec. 9321. Short title.  
 Sec. 9322. Findings.  
 Sec. 9323. Grant program.  
 Sec. 9324. International Energy Advisory Board.  
 Sec. 9325. Definitions.  
 Sec. 9326. Termination.  
 Sec. 9327. Authorization of appropriations.  
 Sec. 9328. Constitutional authority.

Subtitle E—Advanced Plug-In Hybrid Vehicles and Components

- Sec. 9401. Advanced battery loan guarantee program.  
 Sec. 9402. Domestic manufacturing conversion grant program.  
 Sec. 9403. Plug-in hybrid vehicle program.  
 Sec. 9404. Plug-in hybrid demonstration vehicles.  
 Sec. 9405. Incentive for Federal and State fleets for medium and heavy duty hybrids.  
 Sec. 9406. Inclusion of electric drive in Energy Policy Act of 1992.  
 Sec. 9407. Near-term electric drive transportation deployment program.  
 Sec. 9408. Studying the benefits of plug-in hybrid electric drive vehicles and electric drive transportation.

Subtitle F—Availability of Critical Energy Information

- Sec. 9501. Findings.  
 Sec. 9502. Assessment of resources.

1                   **TITLE I—GREEN JOBS**

2   **SEC. 1001. SHORT TITLE.**

3           This title may be cited as the “Green Jobs Act of  
 4 2007”.

5   **SEC. 1002. ENERGY EFFICIENCY AND RENEWABLE ENERGY**  
 6                   **WORKER TRAINING PROGRAM.**

7           Section 171 of the Workforce Investment Act of 1998  
 8 (29 U.S.C. 2916) is amended by adding at the end the  
 9 following:

1       “(e) ENERGY EFFICIENCY AND RENEWABLE EN-  
2 ENERGY WORKER TRAINING PROGRAM.—

3               “(1) GRANT PROGRAM.—

4                       “(A) IN GENERAL.—Not later than 6  
5 months after the date of enactment of the  
6 Green Jobs Act of 2007, the Secretary, in con-  
7 sultation with the Secretary of Energy, shall es-  
8 tablish an energy efficiency and renewable en-  
9 ergy worker training program under which the  
10 Secretary shall carry out the activities described  
11 in paragraph (2) to achieve the purposes of this  
12 subsection.

13                       “(B) ELIGIBILITY.—For purposes of pro-  
14 viding assistance and services under the pro-  
15 gram established under this subsection—

16                               “(i) target populations of eligible indi-  
17 viduals to be given priority for training  
18 and other services shall include—

19                                       “(I) workers affected by national  
20 energy and environmental policy;

21                                       “(II) individuals in need of up-  
22 dated training related to the energy  
23 efficiency and renewable energy indus-  
24 tries; and

1                   “(III) veterans, or past and  
2                   present members of reserve compo-  
3                   nents of the Armed Forces;

4                   “(IV) unemployed workers;

5                   “(V) individuals, including at-risk  
6                   youth, seeking employment pathways  
7                   out of poverty and into economic self-  
8                   sufficiency; and

9                   “(VI) formerly incarcerated, ad-  
10                  judicated, non-violent offenders;

11                  “(ii) energy efficiency and renewable  
12                  energy industries eligible to participate in  
13                  a program under this subsection include—

14                         “(I) the energy-efficient building,  
15                         construction, and retrofits industries;

16                         “(II) the renewable electric power  
17                         industry;

18                         “(III) the energy efficient and  
19                         advanced drive train vehicle industry;

20                         “(IV) the biofuels industry;

21                         “(V) the deconstruction and ma-  
22                         terials use industries;

23                         “(VI) the energy efficiency as-  
24                         sessment industry serving the residen-

1                    tial, commercial, or industrial sectors;  
2                    and

3                    “(VII)        manufacturers        that  
4                    produce sustainable products using  
5                    environmentally sustainable processes  
6                    and materials.

7                    “(2) ACTIVITIES.—

8                    “(A) NATIONAL RESEARCH PROGRAM.—

9                    Under the program established under para-  
10                    graph (1), the Secretary, acting through the  
11                    Bureau of Labor Statistics, where appropriate,  
12                    shall collect and analyze labor market data to  
13                    track workforce trends resulting from energy-  
14                    related initiatives carried out under this sub-  
15                    section. Activities carried out under this para-  
16                    graph shall include—

17                    “(i) tracking and documentation of  
18                    academic and occupational competencies as  
19                    well as future skill needs with respect to  
20                    renewable energy and energy efficiency  
21                    technology;

22                    “(ii) tracking and documentation of  
23                    occupational information and workforce  
24                    training data with respect to renewable en-  
25                    ergy and energy efficiency technology;

1           “(iii) collaborating with State agen-  
2           cies, workforce investments boards, indus-  
3           try, organized labor, and community and  
4           nonprofit organizations to disseminate in-  
5           formation on successful innovations for  
6           labor market services and worker training  
7           with respect to renewable energy and en-  
8           ergy efficiency technology;

9           “(iv) serving as a clearinghouse for  
10           best practices in workforce development,  
11           job placement, and collaborative training  
12           partnerships;

13           “(v) promoting the establishment of  
14           workforce training initiatives with respect  
15           to renewable energy and energy efficiency  
16           technologies; and

17           “(vi) linking research and develop-  
18           ment in renewable energy and energy effi-  
19           ciency technology with the development of  
20           standards and curricula for current and  
21           future jobs;

22           “(vii) assessing new employment and  
23           work practices including career ladder and  
24           upgrade training as well as high perform-  
25           ance work systems;

1           “(viii) providing technical assistance  
2           and capacity building to national and state  
3           energy partnerships, including industry  
4           and labor representatives.

5           “(B) NATIONAL ENERGY TRAINING PART-  
6           NERSHIP GRANTS.—

7           “(i) IN GENERAL.—Under the pro-  
8           gram established under paragraph (1), the  
9           Secretary shall award National Energy  
10          Training Partnerships Grants on a com-  
11          petitive basis to eligible entities to enable  
12          such entities to carry out training that  
13          leads to economic self-sufficiency and to  
14          develop an energy efficiency and renewable  
15          energy industries workforce. Grants shall  
16          be awarded under this subparagraph so as  
17          to ensure geographic diversity with at least  
18          2 grants awarded to entities located in  
19          each of the 4 Petroleum Administration for  
20          Defense Districts with no subdistricts, and  
21          at least 1 grant awarded to an entity lo-  
22          cated in each of the subdistricts of the Pe-  
23          troleum Administration for Defense Dis-  
24          trict with subdistricts, as such districts are  
25          established by the Secretary of Energy.

1           “(ii) ELIGIBILITY.—To be eligible to  
2 receive a grant under clause (i), an entity  
3 shall be a non-profit partnership that—

4           “(I) includes the equal participa-  
5 tion of industry, including public or  
6 private employers, and labor organiza-  
7 tions, including joint labor-manage-  
8 ment training programs, and may in-  
9 clude workforce investment boards,  
10 community-based organizations, edu-  
11 cational institutions, small businesses,  
12 cooperatives, State and local veterans  
13 agencies, and veterans service organi-  
14 zations; and

15           “(II) demonstrates—

16           “(aa) experience in imple-  
17 menting and operating worker  
18 skills training and education pro-  
19 grams;

20           “(bb) the ability to identify  
21 and involve in training programs  
22 carried out under this grant, tar-  
23 get populations of workers who  
24 would benefit from activities re-

1                   lated to energy efficiency and re-  
2                   newable energy industries; and

3                   “(cc) the ability to help  
4                   workers achieve economic self-  
5                   sufficiency.

6                   “(iii) PRIORITY.—Priority shall be  
7                   given to partnerships which leverage addi-  
8                   tional public and private resources to fund  
9                   training programs, including cash or in-  
10                  kind matches from participating employers.

11                  “(C) STATE LABOR MARKET RESEARCH,  
12                  INFORMATION, AND LABOR EXCHANGE RE-  
13                  SEARCH PROGRAM.—

14                  “(i) IN GENERAL.—Under the pro-  
15                  gram established under paragraph (1), the  
16                  Secretary shall award competitive grants to  
17                  States to enable such States to administer  
18                  labor market and labor exchange informa-  
19                  tion programs that include the implemen-  
20                  tation of the activities described in clause  
21                  (ii), in coordination with the one-stop deliv-  
22                  ery system.

23                  “(ii) ACTIVITIES.—A State shall use  
24                  amounts awarded under a grant under this  
25                  subparagraph to provide funding to the

1 State agency that administers the Wagner-  
2 Peyser Act and State unemployment com-  
3 pensation programs to carry out the fol-  
4 lowing activities using State agency merit  
5 staff:

6 “(I) The identification of job  
7 openings in the renewable energy and  
8 energy efficiency sector.

9 “(II) The administration of skill  
10 and aptitude testing and assessment  
11 for workers.

12 “(III) The counseling, case man-  
13 agement, and referral of qualified job  
14 seekers to openings and training pro-  
15 grams, including energy efficiency and  
16 renewable energy training programs.

17 “(D) STATE ENERGY TRAINING PARTNER-  
18 SHIP PROGRAM.—

19 “(i) IN GENERAL.—Under the pro-  
20 gram established under paragraph (1), the  
21 Secretary shall award competitive grants to  
22 States to enable such States to administer  
23 renewable energy and energy efficiency  
24 workforce development programs that in-

1           clude the implementation of the activities  
2           described in clause (ii).

3           “(ii) PARTNERSHIPS.—A State shall  
4           use amounts awarded under a grant under  
5           this subparagraph to award competitive  
6           grants to eligible State Energy Sector  
7           Partnerships to enable such Partnerships  
8           to coordinate with existing apprenticeship  
9           and labor management training programs  
10          and implement training programs that lead  
11          to the economic self-sufficiency of trainees.

12          “(iii) ELIGIBILITY.—To be eligible to  
13          receive a grant under this subparagraph, a  
14          State Energy Sector Partnership shall—

15                 “(I) consist of non-profit organi-  
16                 zations that include equal participa-  
17                 tion from industry, including public or  
18                 private nonprofit employers, and labor  
19                 organizations, including joint labor-  
20                 management training programs, and  
21                 may include representatives from local  
22                 governments, the workforce invest-  
23                 ment system, including worker invest-  
24                 ment agency one-stop career centers,  
25                 community based organizations, com-

1 community colleges, and other post-sec-  
2 ondary institutions, small businesses,  
3 cooperatives, State and local veterans  
4 agencies, and veterans service organi-  
5 zations;

6 “(II) demonstrate experience in  
7 implementing and operating worker  
8 skills training and education pro-  
9 grams; and

10 “(III) demonstrate the ability to  
11 identify and involve in training pro-  
12 grams, target populations of workers  
13 who would benefit from activities re-  
14 lated to energy efficiency and renew-  
15 able energy industries.

16 “(iv) PRIORITY.—In awarding grants  
17 under this subparagraph, the Secretary  
18 shall give priority to States that dem-  
19 onstrate that activities under the grant—

20 “(I) meet national energy policies  
21 associated with energy efficiency, re-  
22 newable energy, and the reduction of  
23 emissions of greenhouse gases;

24 “(II) meet State energy policies  
25 associated with energy efficiency, re-

1 newable energy, and the reduction of  
2 emissions of greenhouse gases; and

3 “(III) leverage additional public  
4 and private resources to fund training  
5 programs, including cash or in-kind  
6 matches from participating employers.

7 “(v) COORDINATION.—A grantee  
8 under this subparagraph shall coordinate  
9 activities carried out under the grant with  
10 existing other appropriate training pro-  
11 grams, including apprenticeship and labor  
12 management training programs, including  
13 such activities referenced in subparagraph  
14 (C)(ii), and implement training programs  
15 that lead to the economic self-sufficiency of  
16 trainees.

17 “(E) PATHWAYS OUT OF POVERTY DEM-  
18 ONSTRATION PROGRAM.—

19 “(i) IN GENERAL.—Under the pro-  
20 gram established under paragraph (1), the  
21 Secretary shall award at least 10 competi-  
22 tive grants to eligible entities to enable  
23 such entities to carry out training that  
24 leads to economic self-sufficiency. The Sec-  
25 retary shall give priority to entities that

1 serve individuals in families with income of  
2 less than 200 percent of the poverty  
3 threshold (as determined by the Bureau of  
4 the Census) or a self-sufficiency standard  
5 for the local areas where the training is  
6 conducted that specifies the income needs  
7 of families, by family size, the number and  
8 ages of children in the family, and sub-  
9 State geographical considerations. Grants  
10 shall be awards to ensure geographic diver-  
11 sity.

12 “(ii) ELIGIBLE ENTITIES.—To be eli-  
13 gible to receive a grant an entity shall be  
14 a partnership that—

15 “(I) includes community-based  
16 non-profit organizations, educational  
17 institutions with expertise in serving  
18 low-income adults or youth, public or  
19 private employers from the industry  
20 sectors described in paragraph  
21 (1)(B)(ii), and labor organizations  
22 representing workers in such industry  
23 sectors;

24 “(II) demonstrates experience in  
25 implementing and operating worker

1 skills training and education pro-  
2 grams;

3 “(III) coordinates activities,  
4 where appropriate, with the workforce  
5 investment system; and

6 “(IV) demonstrates the ability to  
7 recruit individuals for training and to  
8 support such individuals to successful  
9 completion in training programs car-  
10 ried out under this grant, targeting  
11 populations of workers who are or will  
12 be engaged in activities related to en-  
13 ergy efficiency and renewable energy  
14 industries.

15 “(iii) PRIORITIES.—In awarding  
16 grants under this paragraph, the Secretary  
17 shall give priority to applicants that—

18 “(I) target programs to benefit  
19 low-income workers, unemployed  
20 youth and adults, high school drop-  
21 outs, or other underserved sectors of  
22 the workforce within areas of high  
23 poverty;

24 “(II) ensure that supportive serv-  
25 ices are integrated with education and

1 training, and delivered by organiza-  
2 tions with direct access to and experi-  
3 ence with targeted populations;

4 “(III) leverage additional public  
5 and private resources to fund training  
6 programs, including cash or in-kind  
7 matches from participating employers;

8 “(IV) involve employers and  
9 labor organizations in the determina-  
10 tion of relevant skills and com-  
11 petencies and ensure that the certifi-  
12 cates or credentials that result from  
13 the training are employer-recognized;

14 “(V) deliver courses at alter-  
15 native times (such as evening and  
16 weekend programs) and locations  
17 most convenient and accessible to par-  
18 ticipants; and

19 “(VI) link adult remedial edu-  
20 cation with occupational skills train-  
21 ing.

22 “(iv) DATA COLLECTION.—Grantees  
23 shall collect and report the following infor-  
24 mation:

25 “(I) The number of participants.

1           “(II) The demographic character-  
2           istics of participants, including race,  
3           gender, age, parenting status, partici-  
4           pation in other Federal programs,  
5           education and literacy level at entry,  
6           significant barriers to employment  
7           (such as limited English proficiency,  
8           criminal record, addiction or mental  
9           health problem requiring treatment,  
10          or mental disability).

11          “(III) The services received by  
12          participants, including training, edu-  
13          cation, and supportive services.

14          “(IV) The amount of program  
15          spending per participant.

16          “(V) Program completion rates.

17          “(VI) Factors determined as sig-  
18          nificantly interfering with program  
19          participation or completion.

20          “(VII) The rate of Job placement  
21          and the rate of employment retention  
22          after 1 year.

23          “(VIII) The average wage at  
24          placement, including any benefits, and

1 the rate of average wage increase  
2 after 1 year.

3 “(IX) Any post-employment sup-  
4 portive services provided.

5 The Secretary shall assist grantees in the  
6 collection of data under this clause by  
7 making available, where practicable, low-  
8 cost means of tracking the labor market  
9 outcomes of participants, and by providing  
10 standardized reporting forms, where appro-  
11 priate.

12 “(3) ACTIVITIES.—

13 “(A) IN GENERAL.—Activities to be car-  
14 ried out under a program authorized by sub-  
15 paragraphs (B), (D), or (E) of paragraph (2)  
16 shall be coordinated with existing systems or  
17 providers, as appropriate. Such activities may  
18 include—

19 “(i) occupational skills training, in-  
20 cluding curriculum development, on-the-job  
21 training, and classroom training;

22 “(ii) safety and health training;

23 “(iii) the provision of basic skills, lit-  
24 eracy, GED, English as a second language,  
25 and job readiness training;

1           “(iv) individual referral and tuition  
2 assistance for a community college training  
3 program, or any training program leading  
4 to an industry-recognized certificate;

5           “(v) internship programs in fields re-  
6 lated to energy efficiency and renewable  
7 energy;

8           “(vi) customized training in conjunc-  
9 tion with an existing registered apprentice-  
10 ship program or labor-management part-  
11 nership;

12           “(vii) career ladder and upgrade  
13 training;

14           “(viii) the implementation of transi-  
15 tional jobs strategies; and

16           “(ix) the provision of supportive serv-  
17 ices.

18           “(B) OUTREACH ACTIVITIES.—In addition  
19 to the activities authorized under subparagraph  
20 (A), activities authorized for programs under  
21 subparagraph (E) of paragraph (2) may include  
22 the provision of outreach, recruitment, career  
23 guidance, and case management services.

24           “(4) WORKER PROTECTIONS AND NON-  
25 DISCRIMINATION REQUIREMENTS.—

1           “(A) APPLICATION OF WIA.—The provi-  
2           sions of sections 181 and 188 of the Workforce  
3           Investment Act of 1998 (29 U.S.C. 2931 and  
4           2938) shall apply to all programs carried out  
5           with assistance under this subsection.

6           “(B) CONSULTATION WITH LABOR ORGANI-  
7           ZATIONS.—If a labor organization represents a  
8           substantial number of workers who are engaged  
9           in similar work or training in an area that is  
10          the same as the area that is proposed to be  
11          funded under this Act, the labor organization  
12          shall be provided an opportunity to be consulted  
13          and to submit comments in regard to such a  
14          proposal.

15          “(5) PERFORMANCE MEASURES.—

16          “(A) IN GENERAL.—The Secretary shall  
17          negotiate and reach agreement with the eligible  
18          entities that receive grants and assistance  
19          under this section on performance measures for  
20          the indicators of performance referred to in  
21          subparagraph (A) and (B) of section 136(b)(2)  
22          that will be used to evaluate the performance of  
23          the eligible entity in carrying out the activities  
24          described in subsection (e)(2) . Each State and  
25          local performance measure shall consist of such

1 an indicator of performance, and a performance  
2 level referred to in subparagraph (B).

3 “(B) PERFORMANCE LEVELS.—The Sec-  
4 retary shall negotiate and reach agreement with  
5 the eligible entity regarding the levels of per-  
6 formance expected to be achieved by the eligible  
7 entity on the indicators of performance.

8 “(6) REPORT.—

9 “(A) STATUS REPORT.—Not later than 18  
10 months after the date of enactment of the  
11 Green Jobs Act of 2007, the Secretary shall  
12 transmit a report to Congress on the training  
13 program established by this subsection. The re-  
14 port shall include a description of the entities  
15 receiving funding and the activities carried out  
16 by such entities.

17 “(B) EVALUATION.—Not later than 3  
18 years after the date of enactment of such Act,  
19 the Secretary shall transmit to Congress an as-  
20 sessment of such program and an evaluation of  
21 the activities carried out by entities receiving  
22 funding from such program.

23 “(7) DEFINITION.—As used in this subsection,  
24 the term ‘renewable energy’ has the meaning given

1 such term in section 203(b)(2) of the Energy Policy  
2 Act of 2005 (Public Law 109–58).

3 “(8) AUTHORIZATION OF APPROPRIATIONS.—  
4 There is authorized to be appropriated to carry out  
5 this subsection, \$125,000,000 for each fiscal years,  
6 of which—

7 “(A) not to exceed 20 percent of the  
8 amount appropriated in each such fiscal year  
9 shall be made available for, and shall be equally  
10 divided between, national labor market research  
11 and information under paragraph (2)(A) and  
12 State labor market information and labor ex-  
13 change research under paragraph (2)(C), and  
14 not more than 2 percent of such amount shall  
15 be for the evaluation and report required under  
16 paragraph (4);

17 “(B) 20 percent shall be dedicated to  
18 Pathways Out of Poverty Demonstration Pro-  
19 grams under paragraph (2)(E); and

20 “(C) the remainder shall be divided equally  
21 between National Energy Partnership Training  
22 Grants under paragraph (2)(B) and State en-  
23 ergy training partnership grants under para-  
24 graph (2)(D).”.

1 **TITLE II—INTERNATIONAL CLI-**  
2 **MATE COOPERATION RE-EN-**  
3 **GAGEMENT ACT OF 2007**

4 **SEC. 2001. SHORT TITLE.**

5 This title may be cited as the “International Climate  
6 Cooperation Re-engagement Act of 2007”.

7 **SEC. 2002. DEFINITIONS.**

8 In this title:

9 (1) **APPROPRIATE CONGRESSIONAL COMMIT-**  
10 **TEES.**—The term “appropriate congressional com-  
11 mittees” means the Committee on Foreign Affairs of  
12 the House of Representatives and the Committee on  
13 Foreign Relations of the Senate.

14 (2) **CLEAN AND EFFICIENT ENERGY TECH-**  
15 **NOLOGY.**—The term “clean and efficient energy  
16 technology” means an energy supply or end-use  
17 technology—

18 (A) such as—

- 19 (i) solar technology;  
20 (ii) wind technology;  
21 (iii) geothermal technology;  
22 (iv) hydroelectric technology; and  
23 (v) carbon capture technology; and

1 (B) that, over its life cycle and compared  
2 to a similar technology already in commercial  
3 use—

4 (i) is reliable, affordable, economically  
5 viable, socially acceptable, and compatible  
6 with the needs and norms of the country  
7 involved;

8 (ii) results in—

9 (I) reduced emissions of green-  
10 house gases; or

11 (II) increased geological seques-  
12 tration; and

13 (iii) may—

14 (I) substantially lower emissions  
15 of air pollutants; or

16 (II) generate substantially small-  
17 er or less hazardous quantities of solid  
18 or liquid waste.

19 (3) GEOLOGICAL SEQUESTRATION.—The term  
20 “geological sequestration” means the capture and  
21 long-term storage in a geological formation of a  
22 greenhouse gas from an energy producing facility,  
23 which prevents the release of greenhouse gases into  
24 the atmosphere.

1           (4) GREENHOUSE GAS.—The term “greenhouse  
2       gas” means—

- 3                   (A) carbon dioxide;  
4                   (B) methane;  
5                   (C) nitrous oxide;  
6                   (D) hydrofluorocarbons;  
7                   (E) perfluorocarbons; or  
8                   (F) sulfur hexafluoride.

9       **Subtitle A—United States Policy on**  
10       **Global Climate Change**

11       **SEC. 2101. CONGRESSIONAL FINDINGS.**

12       Congress makes the following findings:

13           (1) There is a global scientific consensus, as es-  
14       tablished by the Intergovernmental Panel on Climate  
15       Change (IPCC) and confirmed by the National  
16       Academy of Sciences, that the continued build-up of  
17       anthropogenic greenhouse gases in the atmosphere  
18       has been, and is now warming the earth and threat-  
19       ens the stability of the global climate. By the esti-  
20       mate of the IPCC, unmitigated global greenhouse  
21       gas emissions could drive up global temperatures by  
22       as much as 7 to 11 degrees Fahrenheit by 2100.

23           (2) Climate change is already having significant  
24       impacts in certain regions of the world and on many

1 ecosystems, with poor populations being most vul-  
2 nerable.

3 (3) Climate change is a global problem that can  
4 only be managed by a coordinated global response  
5 that reduces global emissions of greenhouse gases to  
6 a level that stabilizes their concentration in the  
7 Earth's atmosphere.

8 (4) The United Nations Framework Convention  
9 on Climate Change (hereinafter in this section re-  
10 ferred to as the "Convention") establishes a viable  
11 foundation to construct a global regime to combat  
12 global warming and manage its impacts.

13 (5) The United States, along with 189 other  
14 countries, is a party to the Convention, agreed to in  
15 New York on May 9, 1992, and entered into force  
16 in 1994. The Convention's stated objective is "to  
17 achieve stabilization of greenhouse gas concentra-  
18 tions in the atmosphere at a level that would prevent  
19 dangerous anthropogenic interference with the cli-  
20 mate system".

21 (6) The Kyoto Protocol to the Convention was  
22 adopted by the third Convention Conference of the  
23 Parties (COP-3) in December 1997, in Kyoto,  
24 Japan, and stipulated legally binding reductions in  
25 greenhouse gas emissions at an average of 5.2 per-

1 cent below 1990 levels for industrialized countries,  
2 but it did not specify policies for its implementation.  
3 The Kyoto Protocol also did not stipulate binding re-  
4 ductions in greenhouse gas emissions for rapidly in-  
5 dustrializing countries such as China, India, and  
6 Brazil.

7 (7) Before negotiations were completed on the  
8 mechanisms for implementing Kyoto Protocol com-  
9 mitments on greenhouse gas emissions, George W.  
10 Bush took office as President of the United States,  
11 and in March 2001, announced opposition to contin-  
12 ued negotiations over implementation of the Pro-  
13 tocol, stating that the Protocol was “fatally flawed”  
14 from the Administration’s point of view.

15 (8) President Bush unveiled an “alternative”  
16 strategy to the Kyoto Protocol for halting global  
17 warming on February 14, 2002. The President’s  
18 plan did not contain any international component to  
19 amend or supplant the Kyoto Protocol or any kind  
20 of blueprint for committing major developing econo-  
21 mies such as China, India, and Brazil to reduce fu-  
22 ture greenhouse gas emissions. The President’s plan  
23 set a voluntary “greenhouse gas intensity” target for  
24 the United States that specified an 18 percent re-  
25 duction in “emissions intensity” by 2012. This re-

1       duction would allow actual emissions to increase by  
2       at least 12 percent over the same period.

3           (9) On February 16, 2005, after Russia’s ratifi-  
4       cation, the Kyoto Protocol entered into force. With  
5       entry into force, the emissions targets of the Pro-  
6       tocol became legally binding commitments for those  
7       industrialized countries that ratified the Protocol.  
8       Because the United States and Australia did not  
9       ratify the Protocol, and because developing countries  
10      are not subject to its limits, the Protocol currently  
11      restricts the emissions of countries accounting for  
12      only 32 percent of global greenhouse gas emissions.

13          (10) The Kyoto Protocol required that parties  
14      to the Protocol begin negotiating in 2005 toward a  
15      second round of commitments to begin after the ex-  
16      piration of the first emissions budget period in 2012.  
17      The eleventh Convention Conference of the Parties  
18      (COP–11) in November and December 2005 in  
19      Montreal, Canada launched the negotiations on the  
20      second round of commitments by parties to the Pro-  
21      tocol and initiated a dialogue (a “parallel process”)  
22      under the Convention that engaged both the United  
23      States and developing countries in discussions on fu-  
24      ture efforts.

1           (11) At the twelfth Convention Conference of  
2           the Parties (COP-12) in November 2006 in Nairobi,  
3           Kenya, parties continued discussions on a second  
4           round of commitments under the Kyoto Protocol as  
5           a successor to the first commitment period (2008  
6           through 2012) and, in the parallel process, discussed  
7           enhanced cooperation under the Convention that  
8           would engage countries that did not have commit-  
9           ments under the Protocol.

10           (12) At a summit in Brussels, Belgium in  
11           March 2007, the head of governments of the Euro-  
12           pean Union committed its Member States to cut  
13           greenhouse gas emissions 20 percent below 1990 lev-  
14           els by 2020 and committed to move this target up  
15           to 30 percent if the United States and other major  
16           emitters joined the commitment.

17           (13) On April 17, 2007, the United Nations Se-  
18           curity Council held its first ever “open meeting” on  
19           the impact of climate change on international secu-  
20           rity. British Foreign Secretary Margaret Beckett, in  
21           her capacity as President of the Security Council,  
22           declared in her opening statement that the Council  
23           has a “security imperative” to tackle climate change  
24           because it can exacerbate problems that cause con-  
25           flicts and because it threatens the entire planet.

1 United Nations Secretary-General Ban Ki-moon told  
2 the Council that “issues of energy and climate  
3 change have implications for peace and security”.

4 (14) Working Group III of the IPCC met from  
5 April 30 through May 4, 2007, in Bangkok, Thai-  
6 land to assess technologies and policies needed to  
7 avert dangerous climate change and to provide back-  
8 ground for negotiations on a post-2012 climate  
9 change regime. The draft report by the IPCC Work-  
10 ing Group III concludes that by quickly adopting  
11 technological options that are available or are being  
12 developed, the global concentration of greenhouse  
13 gases in the atmosphere can be stabilized at 450–  
14 550 parts per million (ppm). The IPCC scientists  
15 believe that a 450 to 550 ppm ceiling might limit  
16 the global rise in temperatures to no more than 3.6  
17 degrees Fahrenheit and avert impacts of escalating  
18 scale, scope, and costs, potentially including the de-  
19 stabilization of large polar ice sheets that could con-  
20 tribute to long-term, catastrophic sea level rise at  
21 higher temperatures.

22 (15) The United Nations Secretary-General  
23 Ban Ki-moon has indicated that one of his top goals  
24 is to forge a more comprehensive agreement under  
25 the Convention to ensure there is no gap when the

1 first commitment period under the Kyoto Protocol  
2 ends in 2012. In order to reach this goal, critical ne-  
3 negotiations involving all of the major greenhouse gas  
4 emitters, along with the vulnerable countries, must  
5 be initiated immediately and be completed by 2009.  
6 On May 1, 2007, the Secretary-General named three  
7 Special Envoys on Climate Change to assist in “con-  
8 sultations with Governments”. The Secretary-Gen-  
9 eral will host a “high-level meeting” on climate  
10 change at the United Nations General Assembly in  
11 September 2007 to give “political direction” to the  
12 thirteenth Convention Conference of the Parties  
13 (COP-13) to take place in December 2007 in Bali,  
14 Indonesia.

15 **SEC. 2102. CONGRESSIONAL STATEMENT OF POLICY.**

16 Congress declares the following to be the policy of the  
17 United States:

18 (1) To promote United States and global secu-  
19 rity through leadership in cooperation with other na-  
20 tions of the global effort to reduce and stabilize  
21 global greenhouse gas emissions and stabilize atmos-  
22 pheric concentration of such gases. As such, the  
23 United States will seek to obtain mitigation commit-  
24 ments from all major greenhouse gas emitting coun-  
25 tries under the institutional framework provided by

1 the United Nations Framework Convention on Cli-  
2 mate Change (hereinafter in this section referred to  
3 as the “Convention”).

4 (2) To facilitate progress in global negotiations  
5 toward a comprehensive agreement under the Con-  
6 vention, and in service of this goal, the United  
7 States will, during the course of 2007, engage in  
8 high level dialogue on climate change within the  
9 Group of Eight (G–8), with the European Union,  
10 with Japan and other industrialized countries, and  
11 with China, India, Brazil, and other major devel-  
12 oping countries. The United States will also partici-  
13 pate in the initiative of the United Nations Sec-  
14 retary-General to build consensus among govern-  
15 ments on enhanced international cooperation on  
16 these matters.

17 (3) To participate more actively and construc-  
18 tively in the intergovernmental climate change proc-  
19 ess, including at the thirteenth Convention Con-  
20 ference of the Parties (COP–13) to take place in De-  
21 cember 2007 in Bali, Indonesia. As such, at the  
22 COP–13 meeting, the United States will be rep-  
23 resented by a high-level delegation composed of cli-  
24 mate experts and career foreign service officers with  
25 extensive diplomatic experience, including experience

1 in multi-lateral negotiations, headed by the Sec-  
2 retary of State, the Secretary's Deputy, or the Un-  
3 dersecretary for Global Affairs of the Department of  
4 State.

5 (4) To engage in serious discussion of possible  
6 future commitments under the Convention. These  
7 discussions will seek to develop a plan of action and  
8 time-table with the goal of adopting a new inter-  
9 national agreement under the Convention that stipu-  
10 lates commitments from all major greenhouse gas  
11 emitters, including the United States and other  
12 countries listed in Annex 1 to the Convention,  
13 China, India, and Brazil, at the fifteenth Convention  
14 Conference of the Parties (COP-15) to take place in  
15 2009. This process will seek as its objective that a  
16 new instrument will come into force by the time the  
17 first commitment period under the Kyoto Protocol  
18 ends in 2012.

19 (5) To protect United States national and eco-  
20 nomic interests and United States competitiveness in  
21 all sectors by negotiating a new agreement under the  
22 Convention that is cost effective, comprehensive,  
23 flexible, and equitable. Such an agreement shall, at  
24 a minimum—

1           (A) require binding mitigation commit-  
2           ments from all major emitting countries based  
3           on their level of development;

4           (B) provide for different forms of commit-  
5           ments, including economy-wide emissions tar-  
6           gets, policy-based commitments, sectoral agree-  
7           ments, and no-regrets targets;

8           (C) increase cooperation on clean and effi-  
9           cient energy technologies and practices;

10          (D) target all greenhouse gases, including  
11          sources, sinks, and reservoirs of greenhouse  
12          gases, and should expand the current scope of  
13          the Kyoto Protocol and Convention to sectors  
14          not covered, such as the international aviation  
15          and maritime sectors;

16          (E) include mechanisms to harness mar-  
17          ket-based solutions, building upon the joint im-  
18          plementation, clean development mechanism,  
19          and international emissions trading developed  
20          under the Protocol;

21          (F) include incentives for sustainable for-  
22          estry management that reflect the value of  
23          avoided deforestation;

1 (G) address the need for adaptation, espe-  
2 cially for the most vulnerable and poorest coun-  
3 tries on the planet;

4 (H) consider the impact on United States  
5 industry and contain effective mechanisms to  
6 protect United States competitiveness; and

7 (I) include the perspectives and address  
8 the concerns of impacted indigenous and tribal  
9 populations.

10 (6) To seek international consensus on long-  
11 term objectives including a target range for stabi-  
12 lizing greenhouse gas concentrations. The target  
13 range should reflect the consensus recommendations  
14 of Intergovernmental Panel on Climate Change  
15 (IPCC) scientists, who believe that concentrations of  
16 greenhouse gases in the Earth's atmosphere must be  
17 stabilized at a level that would provide a reasonable  
18 chance of limiting the rise in global temperatures to  
19 a level that might avert the most dangerous impacts  
20 of climate change.

21 **SEC. 2103. OFFICE ON GLOBAL CLIMATE CHANGE.**

22 (a) ESTABLISHMENT OF OFFICE.—There is estab-  
23 lished within the Department of State an Office on Global  
24 Climate Change (hereinafter in this section referred to as  
25 the “Office”).

1 (b) HEAD OF OFFICE.—

2 (1) IN GENERAL.—The head of the Office shall  
3 be the Ambassador-at-Large for Global Climate  
4 Change (hereinafter in this section referred to as the  
5 “Ambassador-at-Large”).

6 (2) APPOINTMENT.—The Ambassador-at-Large  
7 shall be appointed by the President, by and with the  
8 advice and consent of the Senate.

9 (c) DUTIES.—

10 (1) IN GENERAL.—The primary responsibility  
11 of the Ambassador-at-Large shall be to advance the  
12 goals of the United States with respect to reducing  
13 the emissions of global greenhouse gases and ad-  
14 dressing the challenges posed by global climate  
15 change.

16 (2) ADVISORY ROLE.—The Ambassador-at-  
17 Large—

18 (A) shall be a principal adviser to the  
19 President and the Secretary of State on matters  
20 relating to global climate change; and

21 (B) shall make recommendations to the  
22 President and the Secretary of State on policies  
23 of the United States Government with respect  
24 to international cooperation on reducing the  
25 emission of global greenhouse gases and ad-

1           dressing the challenges posed by global climate  
2           change.

3           (3) DIPLOMATIC REPRESENTATION.—Subject to  
4           the direction of the President and the Secretary of  
5           State, the Ambassador-at-Large is authorized to  
6           represent the United States in matters relating to  
7           global climate change in—

8                   (A) contacts with foreign governments,  
9                   intergovernmental organizations, and special-  
10                  ized agencies of the United Nations, the Orga-  
11                  nization on Security and Cooperation in Eu-  
12                  rope, and other international organizations of  
13                  which the United States is a member; and

14                   (B) multilateral conferences and meetings  
15                  relating to global climate change.

16           (d) FUNDING.—The Secretary of State shall provide  
17           the Ambassador-at-Large with such funds as may be nec-  
18           essary for the hiring of staff for the Office, the conduct  
19           of investigations by the Office, and for necessary travel  
20           to carry out the provisions of this section.

21           (e) REPORT.—Not later than September 1 of each  
22           year, the Secretary of State, with the assistance of the  
23           Ambassador-at-Large, shall prepare and submit to the ap-  
24           propriate congressional committees a report on the strat-  
25           egy, policies, and actions of the United States for reducing

1 the emissions of global greenhouse gases and addressing  
2 the challenges posed of global climate change.

3 **Subtitle B—Assistance to Promote**  
4 **Clean and Efficient Energy**  
5 **Technologies in Foreign Coun-**  
6 **tries**

7 **SEC. 2201. CONGRESSIONAL FINDINGS.**

8 Congress makes the following findings:

9 (1) Several provisions of the Energy Policy Act  
10 of 1992 were designed to expand Federal programs  
11 that support renewable energy and energy efficient  
12 equipment exports and to broaden the portfolio of  
13 programs to include training and technology transfer  
14 activities that help promote development in less in-  
15 dustrialized nations, expand global markets, and re-  
16 duce greenhouse gas emissions. However, few of the  
17 export-related provisions of the Energy Policy Act of  
18 1992 were implemented due to a lack of Federal  
19 funding.

20 (2) In 2000, Congress called for several United  
21 States Government agencies to create an Inter-  
22 agency Working Group to support a Clean Energy  
23 Technology Exports Initiative to use the combined  
24 resources of various agencies to promote the export  
25 of clean energy technologies abroad. The Initiative

1 also suffered from low levels of Federal funding and  
2 has not produced significant results.

3 (3) Large and emerging economies, such as  
4 India and China, play significant roles in the global  
5 energy security system as large consumers of energy  
6 and should be included as member countries in the  
7 International Energy Agency to strengthen the com-  
8 mon interest of importers in encouraging trans-  
9 parent energy markets and in planning for supply  
10 disruptions.

11 (4) The challenge of energy security severely af-  
12 fects developing countries where over 1.6 billion peo-  
13 ple lack access to affordable energy services. In  
14 these nations, a lack of transparency and account-  
15 ability creates a climate of mistrust for investors; bi-  
16 lateral and multilateral lending institutions do not  
17 provide sufficient incentives to companies investing  
18 in clean and efficient energy technologies; women  
19 and children suffer disproportionately due to the  
20 lack of energy services; inaccessibility of energy serv-  
21 ices impedes other development programs in edu-  
22 cation, health, agriculture, and the environment; and  
23 dependence on imported fuels leaves countries vul-  
24 nerable to supply disruptions and economic shocks.

1           (5) In addition to promoting the export of clean  
2 energy technologies, large energy-consuming econo-  
3 mies must also have appropriate incentive systems,  
4 policy and regulatory frameworks, and investment  
5 climates in place to accept and promote the adoption  
6 of such technologies.

7           (6) More than \$16 trillion needs to be invested  
8 in energy-supply infrastructure worldwide by 2030  
9 to meet energy demand, and almost half of total en-  
10 ergy investment will take place in developing coun-  
11 tries, where production and demand are expected to  
12 increase the most.

13           (7) Public and private sector capital will be  
14 needed to fulfill future demand. The opportunity ex-  
15 ists for public and private actors to coordinate ef-  
16 forts and leverage resources to direct this investment  
17 into technologies, practices, and services that pro-  
18 mote energy efficiency, clean-energy production, and  
19 a reduction in global greenhouse gas emissions.

20           (8) In attempting to address the global climate  
21 change challenge, the United States Government re-  
22 cently launched the Asia Pacific Partnership on  
23 Clean Development and Climate, which is meant to  
24 accelerate the development and deployment of clean  
25 energy technologies. However, this Partnership oper-

1       ates in a non-binding framework that does not re-  
2       quire any emissions reductions from the partner  
3       countries.

4       **SEC. 2202. UNITED STATES ASSISTANCE FOR DEVELOPING**  
5                   **COUNTRIES.**

6       (a) ASSISTANCE AUTHORIZED.—The Administrator  
7       of the United States Agency for International Develop-  
8       ment shall support policies and programs in developing  
9       countries that promote clean and efficient energy tech-  
10      nologies—

11           (1) to produce the necessary market conditions  
12          for the private sector delivery of energy and environ-  
13          mental management services;

14           (2) to create an environment that is conducive  
15          to accepting clean and efficient energy technologies  
16          that support the overall purpose of reducing green-  
17          house gas emissions, including—

18                   (A) improving policy, legal, and regulatory  
19                  frameworks;

20                   (B) increasing institutional abilities to pro-  
21                  vide energy and environmental management  
22                  services; and

23                   (C) increasing public awareness and par-  
24                  ticipation in the decision-making of delivering

1 energy and environmental management services;  
2 and

3 (3) to promote the use of American-made clean  
4 and efficient energy technologies, products, and en-  
5 ergy and environmental management services.

6 (b) REPORT.—The Administrator of the United  
7 States Agency for International Development shall submit  
8 to the appropriate committees an annual report on the im-  
9 plementation of this section for each of the fiscal years  
10 2008 through 2012.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry  
12 out this section, there are authorized to be appropriated  
13 to the Administrator of the United States Agency for  
14 International Development \$200,000,000 for each of the  
15 fiscal years 2008 through 2012.

16 **SEC. 2203. UNITED STATES EXPORTS AND OUTREACH PRO-**  
17 **GRAMS FOR INDIA, CHINA, AND OTHER COUN-**  
18 **TRIES.**

19 (a) ASSISTANCE AUTHORIZED.—The Secretary of  
20 Commerce shall direct the United States and Foreign  
21 Commercial Service to expand or create a corps of the  
22 Foreign Commercial Service officers to promote United  
23 States exports in clean and efficient energy technologies  
24 and build the capacity of government officials in India,  
25 China, and any other country the Secretary of Commerce

1 determines appropriate, to become more familiar with the  
2 available technologies—

3           (1) by assigning or training Foreign Commer-  
4           cial Service attachés, who have expertise in clean  
5           and efficient energy technologies from the United  
6           States, to embark on business development and out-  
7           reach efforts to India and China; and

8           (2) by deploying the attachés described in para-  
9           graph (1) to educate provincial, state, and local gov-  
10          ernment officials in India and China on the variety  
11          of United States-based technologies in clean and ef-  
12          ficient energy technologies for the purposes of pro-  
13          moting United States exports and reducing global  
14          greenhouse gas emissions.

15          (b) REPORT.—The Secretary of Commerce shall sub-  
16          mit to the appropriate committees an annual report on  
17          the implementation of this section for each of the fiscal  
18          years 2008 through 2012.

19          (c) AUTHORIZATION OF APPROPRIATIONS.—To carry  
20          out this section, there are authorized to be appropriated  
21          to the Secretary of Commerce such sums as may be nec-  
22          essary for each of the fiscal years 2008 through 2012.

1 **SEC. 2204. UNITED STATES TRADE MISSIONS TO ENCOUR-**  
2 **AGE PRIVATE SECTOR TRADE AND INVEST-**  
3 **MENT.**

4 (a) ASSISTANCE AUTHORIZED.—The Secretary of  
5 Commerce shall direct the International Trade Adminis-  
6 tration to expand or create trade missions to and from  
7 the United States to encourage private sector trade and  
8 investment in clean and efficient energy technologies—

9 (1) by organizing and facilitating trade mis-  
10 sions to foreign countries and by matching United  
11 States private sector companies with opportunities in  
12 foreign markets so that clean and efficient energy  
13 technologies can help to combat increases in global  
14 greenhouse gas emissions; and

15 (2) by creating reverse trade missions in which  
16 the Department of Commerce facilitates the meeting  
17 of foreign private and public sector organizations  
18 with private sector companies in the United States  
19 for the purpose of showcasing clean and efficient en-  
20 ergy technologies in use or in development that could  
21 be exported to other countries.

22 (b) REPORT.—The Secretary of Commerce shall sub-  
23 mit to the appropriate committees an annual report on  
24 the implementation of this section for each of the fiscal  
25 years 2008 through 2012.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry  
2 out this section, there are authorized to be appropriated  
3 to the Secretary of Commerce such sums as may be nec-  
4 essary for each of the fiscal years 2008 through 2012.

5 **SEC. 2205. ACTIONS BY OVERSEAS PRIVATE INVESTMENT**  
6 **CORPORATION.**

7 (a) FINDINGS.—Congress finds the following:

8 (1) Many of the emerging markets within which  
9 the Overseas Private Investment Corporation sup-  
10 ports projects have immense energy needs and will  
11 require significant investment in the energy sector in  
12 the coming decades.

13 (2) The use, or lack of use, of clean and effi-  
14 cient energy technologies can have a dramatic effect  
15 on the rate of global greenhouse gas emissions from  
16 emerging markets in the coming decades.

17 (b) SENSE OF CONGRESS.—It is the sense of Con-  
18 gress that the Overseas Private Investment Corporation  
19 should promote greater investment in clean and efficient  
20 energy technologies by—

21 (1) proactively reaching out to United States  
22 companies that are interested in investing in clean  
23 and efficient energy technologies in countries that  
24 are significant contributors to global greenhouse gas  
25 emissions;





1 shall be carried out pursuant to the authorities of the Mu-  
2 tual Educational and Cultural Exchange Act of 1961 (22  
3 U.S.C. 2451 et seq.) and may be referred to as the “Glob-  
4 al Climate Change Exchange Program”.

5 (b) ELEMENTS.—The program authorized by sub-  
6 section (a) shall contain the following elements:

7 (1) The financing of studies, research, instruc-  
8 tion, and other educational activities dedicated to re-  
9 ducing carbon emissions and addressing the chal-  
10 lenge of global climate change—

11 (A) by or to United States citizens and na-  
12 tionals in foreign universities, governments, or-  
13 ganizations, companies, or other institutions;  
14 and

15 (B) by or to citizens and nationals of for-  
16 eign countries in United States universities,  
17 governments, organizations, companies, or other  
18 institutions.

19 (2) The financing of visits and exchanges be-  
20 tween the United States and other countries of stu-  
21 dents, trainees, teachers, instructors, professors, re-  
22 searchers, and other persons who study, teach, and  
23 conduct research in subjects such as the physical  
24 sciences, environmental science, public policy, eco-  
25 nomics, urban planning, and other subjects and

1 focus on reducing greenhouse gas emissions and ad-  
2 dressing the challenges posed by global climate  
3 change.

4 (c) ACCESS.—The Secretary of State shall ensure  
5 that the program authorized by subsection (a) is available  
6 to—

7 (1) historically Black colleges and universities  
8 that are part B institutions (as such term is defined  
9 in section 322(2) of the Higher Education Act of  
10 1965 (20 U.S.C. 1061(2))), Hispanic-serving institu-  
11 tions (as such term is defined in section 502(5) of  
12 such Act (20 U.S.C. 1101a(5))), Tribal Colleges or  
13 Universities (as such term is defined in section 316  
14 of such Act (20 U.S.C. 1059e)), and other minority  
15 institutions (as such term is defined in section  
16 365(3) of such Act (20 U.S.C. 1067k(3))), and to  
17 the students, faculty, and researchers at such col-  
18 leges, universities, and institutions; and

19 (2) small business concerns owned and con-  
20 trolled by socially and economically disadvantaged  
21 individuals, and small business concerns owned and  
22 controlled by women (as such terms are defined in  
23 section 8(d)(3) of the Small Business Act (15  
24 U.S.C. 637(d)(3))).

1 (d) REPORT.—The Secretary of State shall transmit  
2 to the appropriate committees an annual report on the im-  
3 plementation of this section for each of the fiscal years  
4 2008 through 2012.

5 (e) AUTHORIZATION OF APPROPRIATIONS.—To carry  
6 out this section, there are authorized to be appropriated  
7 to the Secretary of State \$3,000,000 for each of the fiscal  
8 years 2008 through 2012.

9 **SEC. 2208. INTERAGENCY WORKING GROUP TO SUPPORT A**  
10 **CLEAN ENERGY TECHNOLOGY EXPORTS INI-**  
11 **TIATIVE.**

12 (a) ASSISTANCE AUTHORIZED.—The President shall  
13 provide assistance to the Interagency Working Group to  
14 support a Clean Energy Technology Exports Initiative—

15 (1) to improve the ability of the United States  
16 to respond to international competition by leveraging  
17 the resources of Federal departments and agencies  
18 effectively and efficiently and by raising policy issues  
19 that may hamper the export of United States clean  
20 energy technologies abroad;

21 (2) to fulfill, as appropriate, the mission and  
22 objectives as noted in the report entitled, Five-Year  
23 Strategic Plan of the Clean Energy Technology Ex-  
24 ports Initiative, submitted to Congress in October  
25 2002; and

1           (3) to raise the importance and level of over-  
2           sight of the Interagency Working Group to the  
3           heads of the Federal departments and agencies that  
4           are participating in the Interagency Working Group.

5           (b) REPORT.—The Administrator of the United  
6 States Agency for International Development, the Sec-  
7 retary of Commerce, and the Secretary of Energy shall  
8 jointly submit to the appropriate committees an annual  
9 report on the implementation of this section for each of  
10 the fiscal years 2008 through 2012.

11           (c) AUTHORIZATION OF APPROPRIATIONS.—To carry  
12 out this section, there are authorized to appropriated to  
13 the President \$5,000,000 for each of the fiscal years 2008  
14 through 2012.

## 15           **Subtitle C—International Clean** 16           **Energy Foundation**

### 17           **SEC. 2301. DEFINITIONS.**

18           In this subtitle:

19           (1) BOARD.—The term “Board” means the  
20 Board of Directors of the Foundation established  
21 pursuant to section 2302(c).

22           (2) CHIEF EXECUTIVE OFFICER.—The term  
23 “Chief Executive Officer” means the chief executive  
24 officer of the Foundation appointed pursuant to sec-  
25 tion 2302(b).

1           (3) FOUNDATION.—The term “Foundation”  
2           means the International Clean Energy Foundation  
3           established by section 2302(a).

4 **SEC. 2302. ESTABLISHMENT AND MANAGEMENT OF FOUN-**  
5 **DATION.**

6           (a) ESTABLISHMENT.—

7           (1) IN GENERAL.—There is established in the  
8           executive branch a foundation to be known as the  
9           “International Clean Energy Foundation” that shall  
10          be responsible for carrying out the provisions of this  
11          subtitle. The Foundation shall be a government cor-  
12          poration, as defined in section 103 of title 5, United  
13          States Code.

14          (2) BOARD OF DIRECTORS.—The Foundation  
15          shall be governed by a Board of Directors chaired by  
16          the Secretary of State (or the Secretary’s designee)  
17          in accordance with subsection (d).

18          (3) INTENT OF CONGRESS.—It is the intent of  
19          Congress, in establishing the structure of the Foun-  
20          dation set forth in this subsection, to create an enti-  
21          ty that serves the long-term foreign policy and en-  
22          ergy security goals of reducing global greenhouse gas  
23          emissions.

24          (b) CHIEF EXECUTIVE OFFICER.—

1           (1) IN GENERAL.—There shall be in the Foun-  
2           dation a Chief Executive Officer who shall be re-  
3           sponsible for the management of the Foundation.

4           (2) APPOINTMENT.—The Chief Executive Offi-  
5           cer shall be appointed by the Board, with the advice  
6           and consent of the Senate, and shall be a recognized  
7           leader in clean and efficient energy technologies and  
8           climate change and shall have experience in energy  
9           security, business, or foreign policy, chosen on the  
10          basis of a rigorous search.

11          (3) RELATIONSHIP TO BOARD.—The Chief Ex-  
12          ecutive Officer shall report to, and be under the di-  
13          rect authority of, the Board.

14          (4) COMPENSATION AND RANK.—

15                (A) IN GENERAL.—The Chief Executive  
16                Officer shall be compensated at the rate pro-  
17                vided for level III of the Executive Schedule  
18                under section 5314 of title 5, United States  
19                Code.

20                (B) AMENDMENT.—Section 5314 of title  
21                5, United States Code, is amended by adding at  
22                the end the following:

23                “Chief Executive Officer, International Clean En-  
24                ergy Foundation.”.

1           (C) AUTHORITIES AND DUTIES.—The  
2 Chief Executive Officer shall be responsible for  
3 the management of the Foundation and shall  
4 exercise the powers and discharge the duties of  
5 the Foundation.

6           (D) AUTHORITY TO APPOINT OFFICERS.—  
7 In consultation and with approval of the Board,  
8 the Chief Executive Officer shall appoint all of-  
9 ficers of the Foundation.

10 (c) BOARD OF DIRECTORS.—

11           (1) ESTABLISHMENT.—There shall be in the  
12 Foundation a Board of Directors.

13           (2) DUTIES.—The Board shall perform the  
14 functions specified to be carried out by the Board in  
15 this subtitle and may prescribe, amend, and repeal  
16 bylaws, rules, regulations, and procedures governing  
17 the manner in which the business of the Foundation  
18 may be conducted and in which the powers granted  
19 to it by law may be exercised.

20           (3) MEMBERSHIP.—The Board shall consist  
21 of—

22           (A) the Secretary of State (or the Sec-  
23 retary's designee), the Secretary of Energy (or  
24 the Secretary's designee), and the Adminis-  
25 trator of the United States Agency for Inter-

1 national Development (or the Administrator's  
2 designee); and

3 (B) four other individuals with relevant ex-  
4 perience in matters relating to energy security  
5 (such as individuals who represent institutions  
6 of energy policy, business organizations, foreign  
7 policy organizations, or other relevant organiza-  
8 tions) who shall be appointed by the President,  
9 by and with the advice and consent of the Sen-  
10 ate, of which—

11 (i) one individual shall be appointed  
12 from among a list of individuals submitted  
13 by the majority leader of the House of  
14 Representatives;

15 (ii) one individual shall be appointed  
16 from among a list of individuals submitted  
17 by the minority leader of the House of  
18 Representatives;

19 (iii) one individual shall be appointed  
20 from among a list of individuals submitted  
21 by the majority leader of the Senate; and

22 (iv) one individual shall be appointed  
23 from among a list of individuals submitted  
24 by the minority leader of the Senate.

1           (4) CHIEF EXECUTIVE OFFICER.—The Chief  
2 Executive Officer of the Foundation shall serve as a  
3 nonvoting, ex officio member of the Board.

4           (5) TERMS.—

5           (A) OFFICERS OF THE FEDERAL GOVERN-  
6 MENT.—Each member of the Board described  
7 in paragraph (3)(A) shall serve for a term that  
8 is concurrent with the term of service of the in-  
9 dividual’s position as an officer within the other  
10 Federal department or agency.

11           (B) OTHER MEMBERS.—Each member of  
12 the Board described in paragraph (3)(B) shall  
13 be appointed for a term of 3 years and may be  
14 reappointed for a term of an additional 3 years.

15           (C) VACANCIES.—A vacancy in the Board  
16 shall be filled in the manner in which the origi-  
17 nal appointment was made.

18           (D) ACTING MEMBERS.—A vacancy in the  
19 Board may be filled with an appointment of an  
20 acting member by the Chairperson of the Board  
21 for up to 1 year while a nominee is named and  
22 awaits confirmation in accordance with para-  
23 graph (3)(B).

1           (6) CHAIRPERSON.—There shall be a Chair-  
2           person of the Board. The Secretary of State (or the  
3           Secretary’s designee) shall serve as the Chairperson.

4           (7) QUORUM.—A majority of the members of  
5           the Board described in paragraph (3) shall con-  
6           stitute a quorum, which, except with respect to a  
7           meeting of the Board during the 135-day period be-  
8           ginning on the date of the enactment of this Act,  
9           shall include at least 1 member of the Board de-  
10          scribed in paragraph (3)(B).

11          (8) MEETINGS.—The Board shall meet at the  
12          call of the Chairperson, who shall call a meeting no  
13          less than once a year.

14          (9) COMPENSATION.—

15                 (A) OFFICERS OF THE FEDERAL GOVERN-  
16                 MENT.—

17                         (i) IN GENERAL.—A member of the  
18                         Board described in paragraph (3)(A) may  
19                         not receive additional pay, allowances, or  
20                         benefits by reason of the member’s service  
21                         on the Board.

22                         (ii) TRAVEL EXPENSES.—Each such  
23                         member of the Board shall receive travel  
24                         expenses, including per diem in lieu of sub-  
25                         sistence, in accordance with applicable pro-

1                   visions under subchapter I of chapter 57 of  
2                   title 5, United States Code.

3                   (B) OTHER MEMBERS.—

4                   (i) IN GENERAL.—Except as provided  
5                   in clause (ii), a member of the Board de-  
6                   scribed in paragraph (3)(B)—

7                   (I) shall be paid compensation  
8                   out of funds made available for the  
9                   purposes of this subtitle at the daily  
10                  equivalent of the highest rate payable  
11                  under section 5332 of title 5, United  
12                  States Code, for each day (including  
13                  travel time) during which the member  
14                  is engaged in the actual performance  
15                  of duties as a member of the Board;  
16                  and

17                  (II) while away from the mem-  
18                  ber's home or regular place of busi-  
19                  ness on necessary travel in the actual  
20                  performance of duties as a member of  
21                  the Board, shall be paid per diem,  
22                  travel, and transportation expenses in  
23                  the same manner as is provided under  
24                  subchapter I of chapter 57 of title 5,  
25                  United States Code.

1                   (ii) LIMITATION.—A member of the  
2                   Board may not be paid compensation  
3                   under clause (i)(II) for more than 90 days  
4                   in any calendar year.

5 **SEC. 2303. DUTIES OF FOUNDATION.**

6           The Foundation shall—

7                   (1) use the funds authorized by this subtitle to  
8                   make grants to promote projects outside of the  
9                   United States that serve as models of how to signifi-  
10                  cantly reduce the emissions of global greenhouse  
11                  gases through clean and efficient energy tech-  
12                  nologies, processes, and services;

13                  (2) seek contributions from foreign govern-  
14                  ments, especially those rich in energy resources such  
15                  as member countries of the Organization of the Pe-  
16                  troleum Exporting Countries, and private organiza-  
17                  tions to supplement funds made available under this  
18                  subtitle;

19                  (3) harness global expertise through collabo-  
20                  rative partnerships with foreign governments and  
21                  domestic and foreign private actors, including non-  
22                  governmental organizations and private sector com-  
23                  panies, by leveraging public and private capital,  
24                  technology, expertise, and services towards innova-

1       tive models that can be instituted to reduce global  
2       greenhouse gas emissions;

3               (4) create a repository of information on best  
4       practices and lessons learned on the utilization and  
5       implementation of clean and efficient energy tech-  
6       nologies and processes to be used for future initia-  
7       tives to tackle the climate change crisis;

8               (5) be committed to minimizing administrative  
9       costs and to maximizing the availability of funds for  
10      grants under this subtitle; and

11              (6) promote the use of American-made clean  
12      and efficient energy technologies, processes, and  
13      services.

14   **SEC. 2304. ANNUAL REPORT.**

15      (a) REPORT REQUIRED.—Not later than March 31,  
16   2008, and each March 31 thereafter, the Foundation shall  
17   submit to the appropriate congressional committees a re-  
18   port on the implementation of this subtitle during the  
19   prior fiscal year.

20      (b) CONTENTS.—The report required by subsection  
21   (a) shall include—

22              (1) the total financial resources available to the  
23      Foundation during the year, including appropriated  
24      funds, the value and source of any gifts or donations

1 accepted pursuant to section 2305(a)(6), and any  
2 other resources;

3 (2) a description of the Board's policy priorities  
4 for the year and the basis upon which competitive  
5 grant proposals were solicited and awarded to non-  
6 governmental institutions and other organizations;

7 (3) a list of grants made to nongovernmental  
8 institutions and other organizations that includes  
9 the identity of the institutional recipient, the dollar  
10 amount, and the results of the program; and

11 (4) the total administrative and operating ex-  
12 penses of the Foundation for the year, as well as  
13 specific information on—

14 (A) the number of Foundation employees  
15 and the cost of compensation for Board mem-  
16 bers, Foundation employees, and personal serv-  
17 ice contractors;

18 (B) costs associated with securing the use  
19 of real property for carrying out the functions  
20 of the Foundation;

21 (C) total travel expenses incurred by Board  
22 members and Foundation employees in connec-  
23 tion with Foundation activities; and

24 (D) total representational expenses.

1 **SEC. 2305. POWERS OF THE FOUNDATION; RELATED PROVI-**  
2 **SIONS.**

3 (a) POWERS.—The Foundation—

4 (1) shall have perpetual succession unless dis-  
5 solved by a law enacted after the date of the enact-  
6 ment of this Act;

7 (2) may adopt, alter, and use a seal, which shall  
8 be judicially noticed;

9 (3) may make and perform such contracts,  
10 grants, and other agreements with any person or  
11 government however designated and wherever situ-  
12 ated, as may be necessary for carrying out the func-  
13 tions of the Foundation;

14 (4) may determine and prescribe the manner in  
15 which its obligations shall be incurred and its ex-  
16 penses allowed and paid, including expenses for rep-  
17 resentation;

18 (5) may lease, purchase, or otherwise acquire,  
19 improve, and use such real property wherever situ-  
20 ated, as may be necessary for carrying out the func-  
21 tions of the Foundation;

22 (6) may accept money, funds, services, or prop-  
23 erty (real, personal, or mixed), tangible or intan-  
24 gible, made available by gift, bequest grant, or oth-  
25 erwise for the purpose of carrying out the provisions  
26 of this title from domestic or foreign private individ-

1 uals, charities, nongovernmental organizations, cor-  
2 porations, or governments;

3 (7) may use the United States mails in the  
4 same manner and on the same conditions as the ex-  
5 ecutive departments;

6 (8) may contract with individuals for personal  
7 services, who shall not be considered Federal em-  
8 ployees for any provision of law administered by the  
9 Office of Personnel Management;

10 (9) may hire or obtain passenger motor vehi-  
11 cles; and

12 (10) shall have such other powers as may be  
13 necessary and incident to carrying out this subtitle.

14 (b) PRINCIPAL OFFICE.—The Foundation shall  
15 maintain its principal office in the metropolitan area of  
16 Washington, District of Columbia.

17 (c) APPLICABILITY OF GOVERNMENT CORPORATION  
18 CONTROL ACT.—

19 (1) IN GENERAL.—The Foundation shall be  
20 subject to chapter 91 of subtitle VI of title 31,  
21 United States Code, except that the Foundation  
22 shall not be authorized to issue obligations or offer  
23 obligations to the public.

1           (2) CONFORMING AMENDMENT.—Section  
2           9101(3) of title 31, United States Code, is amended  
3           by adding at the end the following:

4                     “(R) the International Clean Energy  
5                     Foundation.”.

6           (d) INSPECTOR GENERAL.—

7                     (1) IN GENERAL.—The Inspector General of  
8           the Department of State shall serve as Inspector  
9           General of the Foundation, and, in acting in such  
10          capacity, may conduct reviews, investigations, and  
11          inspections of all aspects of the operations and ac-  
12          tivities of the Foundation.

13                    (2) AUTHORITY OF THE BOARD.—In carrying  
14          out the responsibilities under this subsection, the In-  
15          spector General shall report to and be under the  
16          general supervision of the Board.

17                    (3) REIMBURSEMENT AND AUTHORIZATION OF  
18          SERVICES.—

19                           (A) REIMBURSEMENT.—The Foundation  
20          shall reimburse the Department of State for all  
21          expenses incurred by the Inspector General in  
22          connection with the Inspector General’s respon-  
23          sibilities under this subsection.

24                           (B) AUTHORIZATION FOR SERVICES.—Of  
25          the amount authorized to be appropriated

1           under section 2307(a) for a fiscal year, up to  
2           \$500,000 is authorized to be made available to  
3           the Inspector General of the Department of  
4           State to conduct reviews, investigations, and in-  
5           spections of operations and activities of the  
6           Foundation.

7 **SEC. 2306. GENERAL PERSONNEL AUTHORITIES.**

8           (a) **DETAIL OF PERSONNEL.**—Upon request of the  
9 Chief Executive Officer, the head of an agency may detail  
10 any employee of such agency to the Foundation on a reim-  
11 bursable basis. Any employee so detailed remains, for the  
12 purpose of preserving such employee’s allowances, privi-  
13 leges, rights, seniority, and other benefits, an employee of  
14 the agency from which detailed.

15           (b) **REEMPLOYMENT RIGHTS.**—

16           (1) **IN GENERAL.**—An employee of an agency  
17 who is serving under a career or career conditional  
18 appointment (or the equivalent), and who, with the  
19 consent of the head of such agency, transfers to the  
20 Foundation, is entitled to be reemployed in such em-  
21 ployee’s former position or a position of like senior-  
22 ity, status, and pay in such agency, if such em-  
23 ployee—

1           (A) is separated from the Foundation for  
2           any reason, other than misconduct, neglect of  
3           duty, or malfeasance; and

4           (B) applies for reemployment not later  
5           than 90 days after the date of separation from  
6           the Foundation.

7           (2) SPECIFIC RIGHTS.—An employee who satis-  
8           fies paragraph (1) is entitled to be reemployed (in  
9           accordance with such paragraph) within 30 days  
10          after applying for reemployment and, on reemploy-  
11          ment, is entitled to at least the rate of basic pay to  
12          which such employee would have been entitled had  
13          such employee never transferred.

14          (c) HIRING AUTHORITY.—Of persons employed by  
15          the Foundation, no more than 30 persons may be ap-  
16          pointed, compensated, or removed without regard to the  
17          civil service laws and regulations.

18          (d) BASIC PAY.—The Chief Executive Officer may fix  
19          the rate of basic pay of employees of the Foundation with-  
20          out regard to the provisions of chapter 51 of title 5,  
21          United States Code (relating to the classification of posi-  
22          tions), subchapter III of chapter 53 of such title (relating  
23          to General Schedule pay rates), except that no employee  
24          of the Foundation may receive a rate of basic pay that

1 exceeds the rate for level IV of the Executive Schedule  
2 under section 5315 of such title.

3 (e) DEFINITIONS.—In this section—

4 (1) the term “agency” means an executive  
5 agency, as defined by section 105 of title 5, United  
6 States Code; and

7 (2) the term “detail” means the assignment or  
8 loan of an employee, without a change of position,  
9 from the agency by which such employee is employed  
10 to the Foundation.

11 **SEC. 2307. AUTHORIZATION OF APPROPRIATIONS.**

12 (a) AUTHORIZATION OF APPROPRIATIONS.—To carry  
13 out this subtitle, there are authorized to be appropriated  
14 \$20,000,000 for each of the fiscal years 2008 through  
15 2012.

16 (b) ALLOCATION OF FUNDS.—

17 (1) IN GENERAL.—The Foundation may allo-  
18 cate or transfer to any agency of the United States  
19 Government any of the funds available for carrying  
20 out this subtitle. Such funds shall be available for  
21 obligation and expenditure for the purposes for  
22 which the funds were authorized, in accordance with  
23 authority granted in this subtitle or under authority  
24 governing the activities of the United States Govern-

1       ment agency to which such funds are allocated or  
2       transferred.

3               (2) NOTIFICATION.—The Foundation shall no-  
4       tify the appropriate congressional committees not  
5       less than 15 days prior to an allocation or transfer  
6       of funds pursuant to paragraph (1).

7               **TITLE III—SMALL ENERGY**  
8               **EFFICIENT BUSINESSES**

9       **SEC. 3001. SHORT TITLE.**

10       This title may be cited as the “Small Energy Effi-  
11       cient Businesses Act”.

12       **SEC. 3002. FINDINGS.**

13       Congress finds the following:

14               (1) Energy efficiency is in our national interest  
15       for our long term economic well being, for the health  
16       and safety of our citizens and the world, and for our  
17       independence and security.

18               (2) Small businesses are more efficient, nimble,  
19       and innovative than large businesses and therefore  
20       more likely to integrate and benefit from energy effi-  
21       cient technology advances and upgrades, but they  
22       are less likely to have the capital to institute these  
23       advances quickly.

24               (3) The majority of businesses (two-thirds) say  
25       they have been unable to invest in comprehensive en-

1 energy efficiency programs for their businesses thus  
2 far, though they know of them and believe they are  
3 effective.

4 (4) A pilot program has demonstrated that in-  
5 dividualized counseling and training combined with  
6 loan and grant availability and other incentives are  
7 very popular and effective in helping small busi-  
8 nesses learn about and adopt energy conservation  
9 methods.

10 (5) The energy saving benefit of such programs,  
11 if they can be implemented on a national basis,  
12 would contribute significantly to our energy inde-  
13 pendence and security.

14 (6) New and emerging technologies are on the  
15 rise, and small businesses are leading the way, for  
16 example the vast majority of renewable fuels pro-  
17 ducers, such as biodiesel and ethanol, are small busi-  
18 nesses.

19 (7) Small businesses currently use almost half  
20 of the Nation's business related energy consumption  
21 and employ half of the Nation's workforce, yet the  
22 Energy Star program, the lead Federal energy effi-  
23 ciency program allocates less than 2 percent of its  
24 resources to its small business program and should  
25 allocate more to educate small businesses.

1           (8) Therefore, it is in the national interest for  
2           the Federal Government to invest in incentives in  
3           the form of improved loan terms, additional invest-  
4           ment inducements, and expert counseling and infor-  
5           mation to assist small businesses to develop, invest  
6           in, and purchase energy efficient buildings, equip-  
7           ment, fixtures, and other technology.

8 **SEC. 3003. LARGER 504 LOAN LIMITS TO HELP BUSINESS**  
9                   **DEVELOP ENERGY EFFICIENT TECH-**  
10                   **NOLOGIES AND PURCHASES.**

11           (a) **ELIGIBILITY FOR ENERGY EFFICIENCY**  
12 **PROJECTS.**—Section 501(d)(3) of the Small Business In-  
13 vestment Act of 1958 (15 U.S.C. 695(d)(3)) is amended—

14           (1) in subparagraph (G) by striking “or” at the  
15           end;

16           (2) in subparagraph (H) by striking the period  
17           at the end and inserting a comma; and

18           (3) by inserting after subparagraph (H) the fol-  
19           lowing:

20                   “(I) reduction of energy consumption by at  
21           least 10 percent,

22                   “(J) increased use of sustainable design or  
23           low-impact design to produce buildings that re-  
24           duce the use of non-renewable resources, mini-

1           mize environmental impact, and relate people  
2           with the natural environment, or

3           “(K) plant, equipment and process up-  
4           grades of renewable energy sources such as  
5           micropower or renewable fuels producers includ-  
6           ing biodiesel and ethanol producers.”.

7           (b) LOANS FOR PLANT PROJECTS USED FOR EN-  
8           ERGY-EFFICIENT PURPOSES.—Section 502(2)(A) of the  
9           Small Business Investment Act of 1958 (15 U.S.C.  
10          696(2)(A)) is amended—

11           (1) in clause (ii) by striking “and” at the end;

12           (2) in clause (iii) by striking the period at the  
13          end and inserting a semicolon; and

14           (3) by adding at the end the following new  
15          clauses:

16                   “(iv) \$4,000,000 for each project that  
17                   reduces the borrower’s energy consumption  
18                   by at least 10 percent; and

19                   “(v) \$4,000,000 for each project that  
20                   generates renewable energy or renewable  
21                   fuels, such as biodiesel or ethanol produc-  
22                   tion.”.

1 **SEC. 3004. REDUCED 7(a) FEES AND HIGHER LOAN GUARAN-**  
2 **TEES FOR PURCHASE OF ENERGY EFFICIENT**  
3 **TECHNOLOGIES.**

4 Section 7(a) of the Small Business Act (15 U.S.C.  
5 636(a)) is amended by adding at the end the following:

6 “(35) LOANS FOR ENERGY EFFICIENT TECH-  
7 NOLOGIES.—The Administrator shall carry out a  
8 program for loans the proceeds of which are used to  
9 purchase energy efficient equipment or fixtures or to  
10 reduce the energy consumption of the borrower, in-  
11 cluding, but not limited to, renewable fuels and en-  
12 ergy products such as biodiesel and ethanol, by 10  
13 percent or more. For a loan made under this para-  
14 graph, the following shall apply:

15 “(A) The loan shall include the participa-  
16 tion by the Administration equal to 90 percent  
17 of the balance of the financing outstanding at  
18 the time of disbursement.

19 “(B) The fees on the loan under para-  
20 graphs (18) and (23) shall be reduced by half.”.

21 **SEC. 3005. SMALL BUSINESS SUSTAINABILITY INITIATIVE.**

22 Section 21 of the Small Business Act (15 U.S.C. 648)  
23 is amended by adding at the end the following:

24 “(n) SMALL BUSINESS SUSTAINABILITY INITIA-  
25 TIVE.—

1           “(1) IN GENERAL.—A Small Business Develop-  
2           ment Center may apply for an additional grant to  
3           carry out a small business sustainability initiative  
4           program.

5           “(2) ELEMENTS OF PROGRAM.—Under a pro-  
6           gram under paragraph (1), the Center shall—

7                   “(A) provide necessary support to smaller  
8                   and medium-sized businesses to—

9                           “(i) evaluate energy efficiency and  
10                           green building opportunities;

11                           “(ii) evaluate renewable energy  
12                           sources such as the use of solar and small  
13                           wind to supplement power consumption;

14                           “(iii) secure financing to achieve en-  
15                           ergy efficiency or to construct green build-  
16                           ings; and

17                           “(iv) empower management to imple-  
18                           ment energy efficiency projects;

19                   “(B) assist entrepreneurs with clean tech-  
20                   nology development and technology commer-  
21                   cialization through—

22                           “(i) technology assessment;

23                           “(ii) intellectual property;

24                           “(iii) Small Business Innovation Re-  
25                           search submissions;

1                   “(iv) strategic alliances;  
2                   “(v) business model development; and  
3                   “(vi) preparation for investors; and  
4                   “(C) help small business improve environ-  
5                   mental performance by shifting to less haz-  
6                   ardous materials and reducing waste and emis-  
7                   sions at the source, including by providing as-  
8                   sistance for businesses to adapt the materials  
9                   they use, the processes they operate, and the  
10                  products and services they produce.

11               “(3) MINIMUM AMOUNT.—Each grant under  
12               this subsection shall be for at least \$150,000.

13               “(4) MAXIMUM AMOUNT.—A grant under this  
14               subsection may not exceed \$300,000.

15               “(5) AUTHORIZATION OF APPROPRIATIONS.—  
16               Subject to amounts approved in advance in appro-  
17               priations Acts and separate from amounts approved  
18               to carry out section 21(a)(1), the Administrator may  
19               make grants or enter into cooperative agreements to  
20               carry out the provisions of this subsection.”.

1 **SEC. 3006. SMALL BUSINESS ADMINISTRATION TO EDU-**  
2 **CATE AND PROMOTE ENERGY EFFICIENCY**  
3 **IDEAS TO SMALL BUSINESSES AND WORK**  
4 **WITH THE SMALL BUSINESS COMMUNITY TO**  
5 **MAKE SUCH INFORMATION WIDELY AVAIL-**  
6 **ABLE.**

7 The Small Business Act is amended—

8 (1) by redesignating section 37 as section 99;

9 and

10 (2) by inserting after section 36 (15 U.S.C.  
11 657f) the following:

12 **“SEC. 37. PROGRAM TO PROVIDE EDUCATION ON ENERGY**  
13 **EFFICIENCY.**

14 “(a) PROGRAM REQUIRED.—The Administrator shall  
15 develop and coordinate a Government-wide program,  
16 building on the Energy Star for Small Business program,  
17 to assist small businesses in—

18 “(1) becoming more energy efficient;

19 “(2) understanding the cost savings from im-  
20 proved energy efficiency; and

21 “(3) identifying financing options for energy ef-  
22 ficiency upgrades.

23 “(b) CONSULTATION AND COOPERATION.—The pro-  
24 gram required by subsection (a) shall be developed and  
25 coordinated—

1           “(1) in consultation with the Secretary of En-  
2           ergy and the Administrator of the Environmental  
3           Protection Agency; and

4           “(2) in cooperation with any entities the Ad-  
5           ministrator considers appropriate, such as industry  
6           trade associations, industry members, and energy ef-  
7           ficiency organizations.

8           “(c) AVAILABILITY OF INFORMATION.—The Admin-  
9           istrator shall make available the information and materials  
10          developed under the program required by subsection (a)  
11          to—

12           “(1) small businesses; and

13           “(2) other Federal programs for energy effi-  
14          ciency, such as the Energy Star for Small Business  
15          program.

16          “(d) STRATEGY AND REPORT.—

17           “(1) STRATEGY REQUIRED.—The Adminis-  
18          trator shall develop a strategy to educate, encourage,  
19          and assist small business to adopt energy efficient  
20          building fixtures and equipment.

21           “(2) REPORT.—Not later than December 31,  
22          2008, the Administrator shall submit to Congress a  
23          report containing a plan to implement the strat-  
24          egy.”.

1 **SEC. 3007. ENERGY SAVING DEBENTURES.**

2 Section 303 of the Small Business Investment Act  
3 of 1958 (15 U.S.C. 683) is amended by adding at the end  
4 the following new subsection:

5 “(k) ENERGY SAVING DEBENTURES.—

6 “(1) IN GENERAL.—In addition to any other  
7 authority under this Act, a small business invest-  
8 ment company licensed after September 30, 2007,  
9 shall have authority to issue Energy Saving debentures.  
10

11 “(2) ENERGY SAVING DEBENTURE DEFINED.—

12 As used in this Act, the term ‘Energy Saving debenture’ means a deferred interest debenture that—

13 “(A) is issued at a discount;

14 “(B) has a five-year maturity or a ten-year  
15 maturity;

16 “(C) requires no interest payment or annual  
17 charge for the first five years;

18 “(D) is restricted to Energy Saving qualified  
19 investments; and  
20

21 “(E) is issued at no cost (as defined in  
22 section 502 of the Credit Reform Act of 1990)  
23 with respect to purchasing and guaranteeing  
24 the debenture.

25 “(3) ENERGY SAVING QUALIFIED INVESTMENT  
26 DEFINED.—As used in this Act, the term ‘Energy

1 Saving qualified investment’ means investment in a  
2 small business that is primarily engaged in research-  
3 ing, manufacturing, developing, or providing prod-  
4 ucts, goods, or services that reduce the use or con-  
5 sumption of non-renewable energy resources.”.

6 **SEC. 3008. INVESTMENTS IN ENERGY SAVING SMALL BUSI-**  
7 **NESSES.**

8 (a) **MAXIMUM LEVERAGE.**—Paragraph (2) of sub-  
9 section (b) of section 303 of the Small Business Invest-  
10 ment Act of 1958 (15 U.S.C. 303(b)(2)) is amended by  
11 adding at the end the following new subparagraph:

12 “(D) **INVESTMENTS IN ENERGY SAVING**  
13 **SMALL BUSINESSES.**—In calculating the out-  
14 standing leverage of a company for purposes of  
15 subparagraph (A), the Administrator shall not  
16 include the amount of the cost basis of any En-  
17 energy Saving qualified investment (as defined in  
18 subsection (k)) made after September 30, 2007,  
19 by a company licensed after September 30,  
20 2007, in a smaller enterprise, to the extent that  
21 the total of such amounts does not exceed 50  
22 percent of the company’s private capital, sub-  
23 ject to such terms as the Administrator may  
24 impose to assure no cost (as defined in section  
25 502 of the Federal Credit Reform Act of 1990)

1           with respect to purchasing or guaranteeing any  
2           debenture involved.”.

3           (b) MAXIMUM AGGREGATE AMOUNT OF LEVER-  
4 AGE.—Paragraph (4) of subsection (b) of section 303 of  
5 the Small Business Investment Act of 1958 (15 U.S.C.  
6 303(b)(4)) is amended by adding at the end the following  
7 new subparagraph:

8                   “(E) INVESTMENTS IN ENERGY SAVING  
9           SMALL BUSINESSES.—In calculating the aggre-  
10          gate outstanding leverage of a company for pur-  
11          poses of subparagraph (A), the Administrator  
12          shall not include the amount of the cost basis  
13          of any Energy Saving qualified investment (as  
14          defined in subsection (k)) made after Sep-  
15          tember 30, 2007, by a company licensed after  
16          September 30, 2007, in a smaller enterprise, to  
17          the extent that the total of such amounts does  
18          not exceed 50 percent of the company’s private  
19          capital, subject to such terms as the Adminis-  
20          trator may impose to assure no cost (as defined  
21          in section 502 of the Federal Credit Reform  
22          Act of 1990) with respect to purchasing or  
23          guaranteeing any debenture involved.”.

1 **SEC. 3009. RENEWABLE FUEL CAPITAL INVESTMENT COM-**  
2 **PANY.**

3 Title III of the Small Business Investment Act of  
4 1958 (15 U.S.C. 681 et seq.) is amended by adding at  
5 the end the following new part:

6 **“PART C—RENEWABLE FUEL CAPITAL**  
7 **INVESTMENT PILOT PROGRAM**

8 **“SEC. 381. DEFINITIONS.**

9 “In this part, the following definitions apply:

10 “(1) VENTURE CAPITAL.—The term ‘venture  
11 capital’ means capital in the form of equity capital  
12 investments. For the purposes of this paragraph, the  
13 term ‘equity capital’ has the same meaning given  
14 such term in section 303(g)(4).

15 “(2) RENEWABLE FUEL CAPITAL INVESTMENT  
16 COMPANY.—The term ‘Renewable Fuel Capital In-  
17 vestment Company’ means a company that—

18 “(A) has been granted final approval by  
19 the Administrator under section 384(e); and

20 “(B) has entered into a participation  
21 agreement with the Administrator.

22 “(3) OPERATIONAL ASSISTANCE.—The term  
23 ‘operational assistance’ means management, mar-  
24 keting, and other technical assistance that assists a  
25 small business concern with business development.

1           “(4) PARTICIPATION AGREEMENT.—The term  
2           ‘participation agreement’ means an agreement, be-  
3           tween the Administrator and a company granted  
4           final approval under section 384(e), that—

5                   “(A) details the company’s operating plan  
6                   and investment criteria; and

7                   “(B) requires the company to make invest-  
8                   ments in smaller enterprises primarily engaged  
9                   in researching, manufacturing, developing, or  
10                  bringing to market renewable energy sources.

11           “(5) RENEWABLE ENERGY.—The term ‘renew-  
12           able energy means’ energy derived from resources  
13           that are regenerative or that cannot be depleted, in-  
14           cluding but not limited to ethanol and biodiesel  
15           fuels.

16           “(6) STATE.—The term ‘State’ means such of  
17           the several States, the District of Columbia, the  
18           Commonwealth of Puerto Rico, the Virgin Islands,  
19           Guam, American Samoa, the Commonwealth of the  
20           Northern Mariana Islands, and any other common-  
21           wealth, territory, or possession of the United States.

22   **“SEC. 382. PURPOSES.**

23           “The purposes of the Renewable Fuel Capital Invest-  
24           ment Program established under this part are—

1           “(1) to promote the research, development,  
2           manufacture and bringing to market of renewable  
3           energy sources by encouraging venture capital in-  
4           vestments in smaller enterprises primarily engaged  
5           such activities; and

6           “(2) to establish a venture capital program,  
7           with the mission of addressing the unmet equity in-  
8           vestment needs of small enterprises engaged in re-  
9           searching, developing, manufacturing, and bringing  
10          to market renewable energy sources, to be adminis-  
11          tered by the Administrator—

12                   “(A) to enter into participation agreements  
13                   with Renewable Fuel Capital Investment com-  
14                   panies;

15                   “(B) to guarantee debentures of Renew-  
16                   able Fuel Capital Investment companies to en-  
17                   able each such company to make venture capital  
18                   investments in smaller enterprises engaged in  
19                   the research, development, manufacture, and  
20                   bringing to market renewable energy sources;  
21                   and

22                   “(C) to make grants to Renewable Fuel  
23                   Investment Capital companies, and to other en-  
24                   tities, for the purpose of providing operational

1 assistance to smaller enterprises financed, or  
2 expected to be financed, by such companies.

3 **“SEC. 383. ESTABLISHMENT.**

4 “In accordance with this part, the Administrator  
5 shall establish a Renewable Fuel Capital Investment Pro-  
6 gram, under which the Administrator may—

7 “(1) enter into participation agreements with  
8 companies granted final approval under section  
9 384(e) for the purposes set forth in section 382; and

10 “(2) guarantee the debentures issued by Renew-  
11 able Fuel Capital Investment companies as provided  
12 in section 385.

13 **“SEC. 384. SELECTION OF RENEWABLE FUEL CAPITAL IN-**  
14 **VESTMENT COMPANIES.**

15 “(a) **ELIGIBILITY.**—A company shall be eligible to  
16 apply to participate, as a Renewable Fuel Capital Invest-  
17 ment company, in the program established under this part  
18 if—

19 “(1) the company is a newly formed for-profit  
20 entity or a newly formed for-profit subsidiary of an  
21 existing entity;

22 “(2) the company has a management team with  
23 experience in alternative energy financing or relevant  
24 venture capital financing; and

1           “(3) the company has a primary objective of in-  
2           vestment in companies that research, manufacture,  
3           develop, or bring to market renewable energy  
4           sources.

5           “(b) APPLICATION.—To participate, as a Renewable  
6           Fuel Capital Investment company, in the program estab-  
7           lished under this part a company meeting the eligibility  
8           requirements set forth in subsection (a) shall submit an  
9           application to the Administrator that includes—

10           “(1) a business plan describing how the com-  
11           pany intends to make successful venture capital in-  
12           vestments in smaller businesses primarily engaged in  
13           the research, manufacture, development, or bringing  
14           to market of renewable energy sources;

15           “(2) information regarding the relevant venture  
16           capital qualifications and general reputation of the  
17           company’s management;

18           “(3) a description of how the company intends  
19           to seek to address the unmet capital needs of the  
20           smaller businesses served;

21           “(4) a proposal describing how the company in-  
22           tends to use the grant funds provided under this  
23           part to provide operational assistance to smaller en-  
24           terprises financed by the company, including infor-  
25           mation regarding whether the company intends to

1 use licensed professionals when necessary on the  
2 company's staff or from an outside entity;

3 “(5) with respect to binding commitments to be  
4 made to the company under this part, an estimate  
5 of the ratio of cash to in-kind contributions;

6 “(6) a description of the criteria to be used to  
7 evaluate whether and to what extent the company  
8 meets the objectives of the program established  
9 under this part;

10 “(7) information regarding the management  
11 and financial strength of any parent firm, affiliated  
12 firm, or any other firm essential to the success of  
13 the company's business plan; and

14 “(8) such other information as the Adminis-  
15 trator may require.

16 “(c) CONDITIONAL APPROVAL.—

17 “(1) IN GENERAL.—From among companies  
18 submitting applications under subsection (b), the  
19 Administrator shall, in accordance with this sub-  
20 section, conditionally approve companies to partici-  
21 pate in the Renewable Fuel Capital Investment Pro-  
22 gram.

23 “(2) SELECTION CRITERIA.—In selecting com-  
24 panies under paragraph (1), the Administrator shall  
25 consider the following:

1           “(A) The likelihood that the company will  
2 meet the goal of its business plan.

3           “(B) The experience and background of  
4 the company’s management team.

5           “(C) The need for venture capital invest-  
6 ments in the geographic areas in which the  
7 company intends to invest.

8           “(D) The extent to which the company will  
9 concentrate its activities on serving the geo-  
10 graphic areas in which it intends to invest.

11           “(E) The likelihood that the company will  
12 be able to satisfy the conditions under sub-  
13 section (d).

14           “(F) The extent to which the activities  
15 proposed by the company will expand economic  
16 opportunities in the geographic areas in which  
17 the company intends to invest.

18           “(G) The strength of the company’s pro-  
19 posal to provide operational assistance under  
20 this part as the proposal relates to the ability  
21 of the applicant to meet applicable cash require-  
22 ments and properly utilize in-kind contribu-  
23 tions, including the use of resources for the  
24 services of licensed professionals, when nec-  
25 essary, whether provided by persons on the

1           company’s staff or by persons outside of the  
2           company.

3           “(H) Any other factors deemed appro-  
4           priate by the Administrator.

5           “(3) NATIONWIDE DISTRIBUTION.—The Admin-  
6           istrator shall select companies under paragraph (1)  
7           in such a way that promotes investment nationwide.

8           “(d) REQUIREMENTS TO BE MET FOR FINAL AP-  
9           PROVAL.—The Administrator shall grant each condi-  
10          tionally approved company a period of time, not to exceed  
11          2 years, to satisfy the following requirements:

12           “(1) CAPITAL REQUIREMENT.—Each condi-  
13           tionally approved company shall raise not less than  
14           \$5,000,000 of private capital or binding capital com-  
15           mitments from one or more investors (other than  
16           agencies or departments of the Federal Government)  
17           who met criteria established by the Administrator.

18           “(2) NONADMINISTRATION RESOURCES FOR  
19           OPERATIONAL ASSISTANCE.—

20           “(A) IN GENERAL.—In order to provide  
21           operational assistance to smaller enterprises ex-  
22           pected to be financed by the company, each  
23           conditionally approved company—

24                   “(i) shall have binding commitments  
25                   (for contribution in cash or in kind)—

1           “(I) from any sources other than  
2           the Small Business Administration  
3           that meet criteria established by the  
4           Administrator;

5           “(II) payable or available over a  
6           multiyear period acceptable to the Ad-  
7           ministrator (not to exceed 10 years);  
8           and

9           “(III) in an amount not less than  
10          30 percent of the total amount of cap-  
11          ital and commitments raised under  
12          paragraph (1);

13          “(ii) shall have purchased an annu-  
14          ity—

15                 “(I) from an insurance company  
16                 acceptable to the Administrator;

17                 “(II) using funds (other than the  
18                 funds raised under paragraph (1)),  
19                 from any source other than the Ad-  
20                 ministrator; and

21                 “(III) that yields cash payments  
22                 over a multiyear period acceptable to  
23                 the Administrator (not to exceed 10  
24                 years) in an amount not less than 30  
25                 percent of the total amount of capital

1                   and commitments raised under para-  
2                   graph (1); or

3                   “(iii) shall have binding commitments  
4                   (for contributions in cash or in kind) of the  
5                   type described in clause (i) and shall have  
6                   purchased an annuity of the type described  
7                   in clause (ii), which in the aggregate make  
8                   available, over a multiyear period accept-  
9                   able to the Administrator (not to exceed 10  
10                  years), an amount not less than 30 percent  
11                  of the total amount of capital and commit-  
12                  ments raised under paragraph (1).

13                  “(B) EXCEPTION.—The Administrator  
14                  may, in the discretion of the Administrator and  
15                  based upon a showing of special circumstances  
16                  and good cause, consider an applicant to have  
17                  satisfied the requirements of subparagraph (A)  
18                  if the applicant has—

19                         “(i) a viable plan that reasonably  
20                         projects the capacity of the applicant to  
21                         raise the amount (in cash or in-kind) re-  
22                         quired under subparagraph (A); and

23                         “(ii) binding commitments in an  
24                         amount equal to not less than 20 percent

1 of the total amount required under para-  
2 graph (A).

3 “(C) LIMITATION.—In order to comply  
4 with the requirements of subparagraphs (A)  
5 and (B), the total amount of a company’s in-  
6 kind contributions may not exceed 50 percent  
7 of the company’s total contributions.

8 “(e) FINAL APPROVAL; DESIGNATION.—The Admin-  
9 istrator shall, with respect to each applicant conditionally  
10 approved to operate as a Renewable Fuel Capital Invest-  
11 ment Company under subsection (c), either—

12 “(1) grant final approval to the applicant to op-  
13 erate as a Renewable Fuel Capital Investment com-  
14 pany under this part and designate the applicant as  
15 such a company, if the applicant—

16 “(A) satisfies the requirements of sub-  
17 section (d) on or before the expiration of the  
18 time period described in that subsection; and

19 “(B) enters into a participation agreement  
20 with the Administrator; or

21 “(2) if the applicant fails to satisfy the require-  
22 ments of subsection (d) on or before the expiration  
23 of the time period described in that subsection, re-  
24 voke the conditional approval granted under that  
25 subsection.

1 **“SEC. 385. DEBENTURES.**

2       “(a) IN GENERAL.—The Administrator may guar-  
3 antee the timely payment of principal and interest, as  
4 scheduled, on debentures issued by any Renewable Fuel  
5 Capital Investment company.

6       “(b) TERMS AND CONDITIONS.—The Administrator  
7 may make guarantees under this section on such terms  
8 and conditions as it deems appropriate, except that the  
9 term of any debenture guaranteed under this section shall  
10 not exceed 15 years.

11       “(c) FULL FAITH AND CREDIT OF THE UNITED  
12 STATES.—The full faith and credit of the United States  
13 is pledged to pay all amounts that may be required to be  
14 paid under any guarantee under this part.

15       “(d) MAXIMUM GUARANTEE.—

16               “(1) IN GENERAL.—Under this section, the Ad-  
17 ministrator may guarantee the debentures issued by  
18 a Renewable Fuel Capital Investment company only  
19 to the extent that the total face amount of out-  
20 standing guaranteed debentures of such company  
21 does not exceed 150 percent of the private capital of  
22 the company, as determined by the Administrator.

23               “(2) TREATMENT OF CERTAIN FEDERAL  
24 FUNDS.—For the purposes of paragraph (1), private  
25 capital shall include capital that is considered to be  
26 Federal funds, if such capital is contributed by an

1 investor other than an agency or department of the  
2 Federal Government.

3 **“SEC. 386. ISSUANCE AND GUARANTEE OF TRUST CERTIFI-**  
4 **CATES.**

5 “(a) ISSUANCE.—The Administrator may issue trust  
6 certificates representing ownership of all or a fractional  
7 part of debentures issued by a Renewable Fuel Capital  
8 Investment company and guaranteed by the Administrator  
9 under this part, if such certificates are based on and  
10 backed by a trust or pool approved by the Administrator  
11 and composed solely of guaranteed debentures.

12 “(b) GUARANTEE.—

13 “(1) IN GENERAL.—The Administrator may,  
14 under such terms and conditions as it deems appro-  
15 priate, guarantee the timely payment of the principal  
16 of and interest on trust certificates issued by the  
17 Administrator or its agents for purposes of this sec-  
18 tion.

19 “(2) LIMITATION.—Each guarantee under this  
20 subsection shall be limited to the extent of principal  
21 and interest on the guaranteed debentures that com-  
22 pose the trust or pool.

23 “(3) PREPAYMENT OR DEFAULT.—In the event  
24 that a debenture in a trust or pool is prepaid, or in  
25 the event of default of such a debenture, the guar-

1       antee of timely payment of principal and interest on  
2       the trust certificates shall be reduced in proportion  
3       to the amount of principal and interest such prepaid  
4       debenture represents in the trust or pool. Interest on  
5       prepaid or defaulted debentures shall accrue and be  
6       guaranteed by the Administrator only through the  
7       date of payment of the guarantee. At any time dur-  
8       ing its term, a trust certificate may be called for re-  
9       demption due to prepayment or default of all deben-  
10      tures.

11       “(c) FULL FAITH AND CREDIT OF THE UNITED  
12      STATES.—The full faith and credit of the United States  
13      is pledged to pay all amounts that may be required to be  
14      paid under any guarantee of a trust certificate issued by  
15      the Administrator or its agents under this section.

16       “(d) FEES.—The Administrator shall not collect a fee  
17      for any guarantee of a trust certificate under this section,  
18      but any agent of the Administrator may collect a fee ap-  
19      proved by the Administrator for the functions described  
20      in subsection (f)(2).

21       “(e) SUBROGATION AND OWNERSHIP RIGHTS.—

22               “(1) SUBROGATION.—In the event the Adminis-  
23      trator pays a claim under a guarantee issued under  
24      this section, it shall be subrogated fully to the rights  
25      satisfied by such payment.

1           “(2) OWNERSHIP RIGHTS.—No Federal, State,  
2 or local law shall preclude or limit the exercise by  
3 the Administrator of its ownership rights in the de-  
4 bentures residing in a trust or pool against which  
5 trust certificates are issued under this section.

6           “(f) MANAGEMENT AND ADMINISTRATION.—

7           “(1) REGISTRATION.—The Administrator may  
8 provide for a central registration of all trust certifi-  
9 cates issued under this section.

10           “(2) CONTRACTING OF FUNCTIONS.—

11           “(A) IN GENERAL.—The Administrator  
12 may contract with an agent or agents to carry  
13 out on behalf of the Administrator the pooling  
14 and the central registration functions provided  
15 for in this section including, notwithstanding  
16 any other provision of law—

17           “(i) maintenance, on behalf of and  
18 under the direction of the Administrator,  
19 of such commercial bank accounts or in-  
20 vestments in obligations of the United  
21 States as may be necessary to facilitate the  
22 creation of trusts or pools backed by de-  
23 bentures guaranteed under this part; and

1                   “(ii) the issuance of trust certificates  
2                   to facilitate the creation of such trusts or  
3                   pools.

4                   “(B) FIDELITY BOND OR INSURANCE RE-  
5                   QUIREMENT.—Any agent performing functions  
6                   on behalf of the Administrator under this para-  
7                   graph shall provide a fidelity bond or insurance  
8                   in such amounts as the Administrator deter-  
9                   mines to be necessary to fully protect the inter-  
10                  ests of the United States.

11                  “(3) REGULATION OF BROKERS AND DEAL-  
12                  ERS.—The Administrator may regulate brokers and  
13                  dealers in trust certificates issued under this section.

14                  “(4) ELECTRONIC REGISTRATION.—Nothing in  
15                  this subsection may be construed to prohibit the use  
16                  of a book-entry or other electronic form of registra-  
17                  tion for trust certificates issued under this section.

18 **“SEC. 387. FEES.**

19                  “(a) IN GENERAL.—Except as provided in section  
20 386(d), the Administrator may charge such fees as it  
21 deems appropriate with respect to any guarantee or grant  
22 issued under this part, in an amount established annually  
23 by the Administration, as necessary to reduce to zero the  
24 cost (as defined in section 502 of the Federal Credit Re-  
25 form Act of 1990) to the Administration of purchasing

1 and guaranteeing debentures under this Act, which  
2 amounts shall be paid to and retained by the Administra-  
3 tion.

4 “(b) OFFSET.—The Administrator may, as provided  
5 by section 388, offset fees charged and collected under  
6 subsection (a).

7 **“SEC. 388. FEE CONTRIBUTION.**

8 “(a) IN GENERAL.—To the extent that amounts are  
9 made available to the Administrator for the purpose of fee  
10 contributions, the administrator shall contribute to fees  
11 paid by the Renewable Fuel Capital Investment companies  
12 under section 387.

13 “(b) ANNUAL ADJUSTMENT.—Each fee contribution  
14 under subsection (a) shall be effective for one fiscal year  
15 and shall be adjusted as necessary for each fiscal year  
16 thereafter to ensure that amounts under subsection (a) are  
17 fully used. The fee contribution for a fiscal year shall be  
18 based on the outstanding commitments made and the  
19 guarantees and grants that the Administrator projects will  
20 be made during that fiscal year, given the program level  
21 authorized by law for that fiscal year and any other fac-  
22 tors that the Administrator deems appropriate.

23 **“SEC. 389. OPERATIONAL ASSISTANCE GRANTS.**

24 “(a) IN GENERAL.—

1           “(1) AUTHORITY.—In accordance with this sec-  
2           tion, the Administrator may make grants to Renew-  
3           able Fuel Capital Investment companies and to  
4           other entities, as authorized by this part, to provide  
5           operational assistance to smaller enterprises fi-  
6           nanced, or expected to be financed, by such compa-  
7           nies or other entities.

8           “(2) TERMS.—Grants made under this sub-  
9           section shall be made over a multiyear period not to  
10          exceed 10 years, under such other terms as the Ad-  
11          ministrator may require.

12          “(3) GRANTS TO SPECIALIZED SMALL BUSINESS  
13          INVESTMENT COMPANIES.—

14               “(A) AUTHORITY.—In accordance with  
15               this section, the Administrator may make  
16               grants to specialized small business investment  
17               companies to provide operational assistance to  
18               smaller enterprises financed, or expected to be  
19               financed, by such companies after the effective  
20               date of the Small Energy Efficient Businesses  
21               Act.

22               “(B) USE OF FUNDS.—The proceeds of a  
23               grant made under this paragraph may be used  
24               by the company receiving such grant only to  
25               provide operational assistance in connection

1 with an equity investment (made with capital  
2 raised after the effective date of the Small En-  
3 ergy Efficient Businesses Act) in a business lo-  
4 cated in a low-income geographic area.

5 “(C) SUBMISSION OF PLANS.—A special-  
6 ized small business investment company shall  
7 be eligible for a grant under this section only if  
8 the company submits to the Administrator, in  
9 such form and manner as the Administrator  
10 may require, a plan for use of the grant.

11 “(4) GRANT AMOUNT.—

12 “(A) RENEWABLE FUEL CAPITAL INVEST-  
13 MENT COMPANIES.—The amount of a grant  
14 made under this subsection to a Renewable  
15 Fuel Capital Investment company shall be equal  
16 to the resources (in cash or in kind) raised by  
17 the company under section 354(d)(2).

18 “(B) OTHER ENTITIES.—The amount of a  
19 grant made under this subsection to any entity  
20 other than a Renewable Fuel Capital Invest-  
21 ment company shall be equal to the resources  
22 (in cash or in kind) raised by the entity in ac-  
23 cordance with the requirements applicable to  
24 Renewable Fuel Capital Investment companies  
25 set forth in section 384(d)(2).

1           “(5) PRO RATA REDUCTIONS.—If the amount  
2           made available to carry out this section is insuffi-  
3           cient for the Administrator to provide grants in the  
4           amounts provided for in paragraph (4), the Adminis-  
5           trator shall make pro rata reductions in the amounts  
6           otherwise payable to each company and entity under  
7           such paragraph.

8           “(b) SUPPLEMENTAL GRANTS.—

9           “(1) IN GENERAL.—The Administrator may  
10          make supplemental grants to Renewable Fuel Cap-  
11          ital Investment companies and to other entities, as  
12          authorized by this part under such terms as the Ad-  
13          ministrator may require, to provide additional oper-  
14          ational assistance to smaller enterprises financed, or  
15          expected to be financed, by the companies.

16          “(2) MATCHING REQUIREMENT.—The Adminis-  
17          trator may require, as a condition of any supple-  
18          mental grant made under this subsection, that the  
19          company or entity receiving the grant provide from  
20          resources (in a cash or in kind), other than those  
21          provided by the Administrator, a matching contribu-  
22          tion equal to the amount of the supplemental grant.

23          “(c) LIMITATION.—None of the assistance made  
24          available under this section may be used for any overhead  
25          or general and administrative expense of a Renewable

1 Fuel Capital Investment company or a specialized small  
2 business investment company.

3 **“SEC. 390. BANK PARTICIPATION.**

4       “(a) IN GENERAL.—Except as provided in subsection  
5 (b), any national bank, any member bank of the Federal  
6 Reserve System, and (to the extent permitted under appli-  
7 cable State law) any insured bank that is not a member  
8 of such system, may invest in any Renewable Fuel Capital  
9 Investment company, or in any entity established to invest  
10 solely in Renewable Fuel Capital Investment companies.

11       “(b) LIMITATION.—No bank described in subsection  
12 (a) may make investments described in such subsection  
13 that are greater than 5 percent of the capital and surplus  
14 of the bank.

15 **“SEC. 391. FEDERAL FINANCING BANK.**

16       “Section 318 shall not apply to any debenture issued  
17 by a Renewable Fuel Capital Investment company under  
18 this part.

19 **“SEC. 392. REPORTING REQUIREMENT.**

20       “Each Renewable Fuel Capital Investment company  
21 that participates in the program established under this  
22 part shall provide to the Administrator such information  
23 as the Administrator may require, including—

1           “(1) information related to the measurement  
2           criteria that the company proposed in its program  
3           application; and

4           “(2) in each case in which the company under  
5           this part makes an investment in, or a loan or a  
6           grant to, a business that is not primarily engaged in  
7           the research, development, manufacture, or bringing  
8           to market or renewable energy sources, a report on  
9           the nature, origin, and revenues of the business in  
10          which investments are made.

11 **“SEC. 393. EXAMINATIONS.**

12          “(a) IN GENERAL.—Each Renewable Fuel Capital  
13 Investment company that participates in the program es-  
14 tablished under this part shall be subject to examinations  
15 made at the direction of the Investment Division of the  
16 Small Business Administration in accordance with this  
17 section.

18          “(b) ASSISTANCE OF PRIVATE SECTOR ENTITIES.—  
19 Examinations under this section may be conducted with  
20 the assistance of a private sector entity that has both the  
21 qualifications and the expertise necessary to conduct such  
22 examinations.

23          “(c) COSTS.—

24                  “(1) ASSESSMENT.—



1 **“SEC. 396. REGULATIONS.**

2 “The Administrator may issue such regulations as it  
3 deems necessary to carry out the provisions of this part  
4 in accordance with its purposes.

5 **“SEC. 397. AUTHORIZATIONS OF APPROPRIATIONS.**

6 “(a) GRANTS.—The Administrator is authorized to  
7 make \$15,000,000 per fiscal year in operational assistance  
8 grants.

9 “(b) FUNDS COLLECTED FOR EXAMINATIONS.—  
10 Funds deposited under section 393(c)(2) are authorized  
11 to be appropriated only for the costs of examinations  
12 under section 393 and for the costs of other oversight ac-  
13 tivities with respect to the program established under this  
14 part.”.

15 **SEC. 3010. STUDY AND REPORT.**

16 The Administrator shall conduct a study of the Re-  
17 newable Fuel Capital Investment Program under part C  
18 of title III of the Small Business Investment Act of 1958.  
19 Not later than 3 years after the date of the enactment  
20 of this Act, the Administrator shall complete the study  
21 and submit to the Congress a report of the results of the  
22 study.

1                   **TITLE IV—SCIENCE AND**  
2                   **TECHNOLOGY**  
3           **Subtitle A—Advanced Research**  
4           **Projects Agency-Energy**

5   **SEC. 4001. ADVANCED RESEARCH PROJECTS AGENCY-EN-**  
6                   **ERGY.**

7           (a) **ESTABLISHMENT.**—There is established the Ad-  
8   vanced Research Projects Agency-Energy (in this subtitle  
9   referred to as “ARPA–E”) within the Department of En-  
10   ergy to overcome the long-term and high-risk technological  
11   barriers in the development of energy technologies.

12           (b) **GOALS.**—The goals of ARPA–E are to enhance  
13   the Nation’s economic and energy security through the de-  
14   velopment of energy technologies that result in reductions  
15   of imports of energy from foreign sources, reductions of  
16   energy-related emissions including greenhouse gases, im-  
17   provements in the energy efficiency of all economic sectors,  
18   and to ensure that the United States maintains a techno-  
19   logical lead in developing and deploying energy tech-  
20   nologies. ARPA–E will achieve this by—

21                   (1) identifying and promoting revolutionary ad-  
22                   vances in fundamental sciences;

23                   (2) translating scientific discoveries and cut-  
24                   ting-edge inventions into technological innovations;

25                   and

1           (3) accelerating transformational technological  
2           advances in areas that industry by itself is not likely  
3           to undertake because of technical and financial un-  
4           certainty.

5           (c) DIRECTOR.—ARPA–E shall be headed by a Di-  
6           rector who shall be appointed by the Secretary of Energy.  
7           The Director shall report to the Secretary. No other pro-  
8           grams within the Department of Energy shall report to  
9           the Director of ARPA–E.

10          (d) RESPONSIBILITIES.—The Director shall admin-  
11          ister the Fund established under section 4002 to award  
12          competitive grants, cooperative agreements, or contracts  
13          to institutions of higher education, companies, research  
14          foundations, trade and industry research collaborations, or  
15          consortia of such entities which may include federally  
16          funded research and development centers, to achieve the  
17          goals stated in subsection (b) through targeted accelera-  
18          tion of—

19                (1) novel early-stage energy research with pos-  
20                sible technology applications;

21                (2) development of techniques, processes, and  
22                technologies, and related testing and evaluation;

23                (3) research and development of manufacturing  
24                processes for novel energy technologies; and

1           (4) demonstration and coordination with non-  
2 governmental entities for commercial applications of  
3 energy technologies and research applications.

4 (e) PERSONNEL.—

5           (1) PROGRAM MANAGERS.—The Director shall  
6 designate employees to serve as program managers  
7 for each of the programs established pursuant to the  
8 responsibilities established for ARPA–E under sub-  
9 section (d). Program managers shall be responsible  
10 for—

11           (A) establishing research and development  
12 goals for the program, including through the  
13 convening of workshops and conferring with  
14 outside experts, as well as publicizing the goals  
15 to the public and private sectors;

16           (B) soliciting applications for specific areas  
17 of particular promise, especially those which the  
18 private sector or the Federal Government are  
19 not likely to undertake alone;

20           (C) building research collaborations for  
21 carrying out the program;

22           (D) selecting on the basis of merit, with  
23 advice under section 4003 as appropriate, each  
24 of the energy projects to be supported under  
25 the program following consideration of—

1 (i) the novelty and scientific and tech-  
2 nical merit of the proposed projects;

3 (ii) the demonstrated capabilities of  
4 the applicants to successfully carry out the  
5 proposed research project;

6 (iii) the applicant's consideration of  
7 future commercial applications of the  
8 project, including the feasibility of  
9 partnering with 1 or more commercial enti-  
10 ties; and

11 (iv) such other criteria as are estab-  
12 lished by the Director; and

13 (E) monitoring the progress of projects  
14 supported under the program, and prescribing  
15 program restructure or termination of research  
16 partnerships or whole projects that do not show  
17 promise.

18 (2) HIRING AND MANAGEMENT.—In hiring per-  
19 sonnel for ARPA-E, the Director shall have the au-  
20 thority to make appointments of scientific, engineer-  
21 ing, and professional personnel without regard to the  
22 civil service laws, and fix the compensation of such  
23 personnel at a rate to be determined by the Director.  
24 The term of appointments for employees may not ex-  
25 ceed 3 years before the granting of any extension. In

1 hiring initial staff the Secretary shall give preference  
2 to applicants with experience in the Defense Ad-  
3 vanced Research Projects Agency, academia, or in  
4 private sector technology development. The Sec-  
5 retary or Director may contract with private recruit-  
6 ing firms in hiring qualified technical staff.

7 (3) ADDITIONAL HIRING.—The Director may  
8 hire additional technical, financial, managerial, or  
9 other staff as needed to carry out the activities of  
10 the program.

11 (f) COORDINATION AND NONDUPLICATION.—To the  
12 extent practicable, the Director shall ensure that the ac-  
13 tivities of ARPA–E are coordinated with, and do not du-  
14 plicate the efforts of, existing programs and laboratories  
15 within the Department of Energy and other relevant re-  
16 search agencies. Where appropriate, the Director may co-  
17 ordinate technology transfer efforts with the Technology  
18 Transfer Coordinator established in section 1001 of the  
19 Energy Policy Act of 2005 (42 U.S.C. 16391).

20 (g) FEDERAL DEMONSTRATION OF TECH-  
21 NOLOGIES.—The Secretary shall make information avail-  
22 able to purchasing and procurement programs of Federal  
23 agencies regarding the potential to demonstrate tech-  
24 nologies resulting from activities funded through ARPA–  
25 E.

1 **SEC. 4002. FUND.**

2 (a) ESTABLISHMENT.—There is established in the  
3 Treasury the Energy Transformation Acceleration Fund  
4 (in this subtitle referred to as the “Fund”), which shall  
5 be administered by the Director of ARPA–E for the pur-  
6 poses of carrying out this subtitle.

7 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
8 are authorized to be appropriated to the Director of  
9 ARPA–E for deposit in the Fund \$300,000,000 for fiscal  
10 year 2008, \$1,000,000,000 for fiscal year 2009,  
11 \$1,100,000,000 for fiscal year 2010, \$1,200,000,000 for  
12 fiscal year 2011, and \$1,300,000,000 for fiscal year 2012,  
13 to remain available until expended.

14 (c) LIMITATION.—No amounts may be appropriated  
15 for the first year of funding for ARPA–E unless the  
16 amount appropriated for the activities of the Office of  
17 Science of the Department of Energy for that fiscal year  
18 exceed the amount appropriated for that Office for fiscal  
19 year 2007, as adjusted for inflation according to the Con-  
20 sumer Price Index.

21 (d) ALLOCATION.—Of the amounts appropriated for  
22 a fiscal year under subsection (b)—

23 (1) not more than 50 percent shall be for activi-  
24 ties under section 4001(d)(4);

1           (2) not more than 8 percent shall be made  
2 available to Federally Funded Research and Devel-  
3 opment Centers;

4           (3) not more than 10 percent may be used for  
5 administrative expenses;

6           (4) at least 2.5 percent shall be designated for  
7 technology transfer and outreach activities; and

8           (5) during the first 5 years of operation of  
9 ARPA-E, no funds may be used for construction of  
10 new buildings or facilities.

11 **SEC. 4003. ADVICE.**

12       (a) **ADVISORY COMMITTEES.**—The Director may seek  
13 advice on any aspect of ARPA-E from—

14           (1) existing Department of Energy advisory  
15 committees; and

16           (2) new advisory committees organized to sup-  
17 port the programs of ARPA-E and to provide advice  
18 and assistance on—

19                   (A) specific program tasks; or

20                   (B) overall direction of ARPA-E.

21       (b) **ADDITIONAL SOURCES OF ADVICE.**—The Direc-  
22 tor may seek advice and review from the National Acad-  
23 emy of Sciences, the National Academy for Engineering,  
24 and any other professional or scientific organization with

1 expertise in specific processes or technologies under devel-  
2 opment by ARPA-E.

3 **SEC. 4004. ARPA-E EVALUATION.**

4 After ARPA-E has been in operation for 54 months,  
5 the President's Committee on Science and Technology  
6 shall begin an evaluation (to be completed within 12  
7 months) of how well ARPA-E is achieving its goals and  
8 mission. The evaluation shall include the recommendation  
9 of such Committee on whether ARPA-E should be contin-  
10 ued or terminated, as well as lessons-learned from its oper-  
11 ation. The evaluation shall be made available to Congress  
12 and to the public upon completion.

13 **SEC. 4005. SAVINGS CLAUSE.**

14 The authorities granted by this subtitle are in addi-  
15 tion to existing authorities granted to the Secretary of En-  
16 ergy, and not intended to supersede or modify any existing  
17 authorities.

18 **Subtitle B—Marine Renewable**  
19 **Energy Technologies**

20 **SEC. 4101. SHORT TITLE.**

21 This subtitle may be cited as the “Marine Renewable  
22 Energy Research and Development Act of 2007”.

23 **SEC. 4102. FINDINGS.**

24 The Congress finds the following:

1           (1) The United States has a critical national in-  
2           terest in developing clean, domestic, renewable  
3           sources of energy in order to reduce environmental  
4           impacts of energy production, increase national secu-  
5           rity, improve public health, and bolster economic  
6           stability.

7           (2) Marine renewable energy technologies are a  
8           nonemitting source of power production.

9           (3) Marine renewable energy may serve as an  
10          alternative to fossil fuels and create thousands of  
11          new jobs within the United States.

12          (4) Europe has already successfully delivered  
13          electricity to the grid through the deployment of  
14          wave and tidal energy devices off the coast of Scot-  
15          land.

16          (5) Recent studies from the Electric Power Re-  
17          search Institute, in conjunction with the Department  
18          of Energy's National Renewable Energy Laboratory,  
19          have identified an abundance of viable sites within  
20          the United States with ample wave and tidal re-  
21          sources to be harnessed by marine power tech-  
22          nologies.

23          (6) Sustained and expanded research, develop-  
24          ment, demonstration, and commercial application  
25          programs are needed to locate and characterize ma-

1 rine renewable energy resources, and to develop the  
2 technologies that will enable their widespread com-  
3 mercial development.

4 (7) Federal support is critical to reduce the fi-  
5 nancial risk associated with developing new marine  
6 renewable energy technologies, thereby encouraging  
7 the private sector investment necessary to make ma-  
8 rine renewable energy resources commercially viable  
9 as a source of electric power and for other applica-  
10 tions.

11 **SEC. 4103. DEFINITIONS.**

12 For purposes of this subtitle—

13 (1) MARINE RENEWABLE ENERGY.—The term  
14 “Marine Renewable Energy” means energy derived  
15 from one or more of the following sources:

16 (A) Waves.

17 (B) Tidal flows.

18 (C) Ocean currents.

19 (D) Ocean thermal energy conversion.

20 (2) SECRETARY.—The term “Secretary” means  
21 the Secretary of Energy.

22 **SEC. 4104. MARINE RENEWABLE ENERGY RESEARCH AND**  
23 **DEVELOPMENT.**

24 (a) IN GENERAL.—The Secretary, in conjunction  
25 with other appropriate agencies, shall support programs

1 of research, development, demonstration, and commercial  
2 application to expand marine renewable energy produc-  
3 tion, including programs to—

4 (1) study and compare existing marine renew-  
5 able energy extraction technologies;

6 (2) research, develop, and demonstrate ad-  
7 vanced marine renewable energy systems and tech-  
8 nologies;

9 (3) reduce the manufacturing and operation  
10 costs of marine renewable energy technologies;

11 (4) investigate efficient and reliable integration  
12 with the utility grid and intermittency issues;

13 (5) advance wave forecasting technologies;

14 (6) conduct experimental and numerical mod-  
15 eling for optimization of marine energy conversion  
16 devices and arrays;

17 (7) increase the reliability and survivability of  
18 marine renewable energy technologies, including de-  
19 velopment of corrosive-resistant materials;

20 (8) study, in conjunction with the Assistant Ad-  
21 ministrator for Research and Development of the  
22 Environmental Protection Agency, the Undersecre-  
23 tary of Commerce for Oceans and Atmosphere, and  
24 other Federal agencies as appropriate, the environ-  
25 mental impacts of marine renewable energy tech-

1 nologies and ways to address adverse impacts, and  
2 provide public information concerning technologies  
3 and other means available for monitoring and deter-  
4 mining environmental impacts;

5 (9) establish protocols, in conjunction with the  
6 National Oceanic and Atmospheric Administration,  
7 for how the ocean community may best interact with  
8 marine renewable energy devices;

9 (10) develop power measurement standards for  
10 marine renewable energy;

11 (11) develop identification standards for marine  
12 renewable energy devices;

13 (12) address standards development, dem-  
14 onstration, and technology transfer for advanced  
15 systems engineering and system integration methods  
16 to identify critical interfaces; and

17 (13) utilize marine resources in the Gulf of  
18 Mexico, the Atlantic Ocean, and the Pacific Ocean.

19 (b) SITING CRITERIA.—The Secretary, in conjunction  
20 with other appropriate Federal agencies, shall develop,  
21 prior to installation of any technologies under this section,  
22 siting criteria for marine renewable energy generation  
23 demonstration and commercial application projects funded  
24 under this subtitle.

1 **SEC. 4105. NATIONAL MARINE RENEWABLE ENERGY RE-**  
2 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**  
3 **TION CENTERS.**

4 (a) CENTERS.—The Secretary, acting through the  
5 National Renewable Energy Laboratory, shall award  
6 grants to institutions of higher education (or consortia  
7 thereof) for the establishment of 1 or more National Ma-  
8 rine Renewable Energy Research, Development, and Dem-  
9 onstration Centers. In selecting locations for Centers, the  
10 Secretary shall consider sites that meet one of the fol-  
11 lowing criteria:

12 (1) Hosts an existing marine renewable energy  
13 research and development program in coordination  
14 with a public university engineering program.

15 (2) Has proven expertise to support environ-  
16 mental and policy-related issues associated with har-  
17 nassing of energy in the marine environment.

18 (3) Has access to and utilizes the marine re-  
19 sources in the Gulf of Mexico, the Atlantic Ocean,  
20 or the Pacific Ocean.

21 The Secretary may give special consideration to histori-  
22 cally black colleges and universities and land grant univer-  
23 sities that also meet one of these criteria. In establishing  
24 criteria for the selection of Centers, the Secretary shall  
25 coordinate with the Undersecretary of Commerce for  
26 Oceans and Atmosphere on the criteria related to advanc-

1 ing wave forecasting technologies, studying the compat-  
2 ibility with the environment of marine renewable energy  
3 technologies and systems, and establishing protocols for  
4 how the ocean community best interacts with marine re-  
5 newable energy devices and parks.

6 (b) PURPOSES.—The Centers shall advance research,  
7 development, demonstration, and commercial application  
8 of marine renewable energy through a number of initia-  
9 tives including for the purposes described in section  
10 4104(1) through (13), and shall serve as an information  
11 clearinghouse for the marine renewable energy industry,  
12 collecting and disseminating information on best practices  
13 in all areas related to developing and managing enhanced  
14 marine renewable energy systems resources.

15 (c) DEMONSTRATION OF NEED.—When applying for  
16 a grant under this section, an applicant shall include a  
17 description of why Federal support is necessary for the  
18 Center, including evidence that the research of the Center  
19 will not be conducted in the absence of Federal support.

20 **SEC. 4106. APPLICABILITY OF OTHER LAWS.**

21 Nothing in this subtitle shall be construed as waiving  
22 the applicability of any requirement under any environ-  
23 mental or other Federal or State law.

1 **SEC. 4107. AUTHORIZATION OF APPROPRIATIONS.**

2       There are authorized to be appropriated to the Sec-  
3 retary to carry out this subtitle \$50,000,000 for each of  
4 the fiscal years 2008 through 2012, except that no funds  
5 shall be appropriated under this section for activities that  
6 are receiving funds under section 931(a)(2)(E)(i) of the  
7 Energy Policy Act of 2005 (42 U.S.C. 16231(a)(2)(E)(i)).

8       **Subtitle C—Geothermal Energy**

9 **SEC. 4201. SHORT TITLE.**

10       This subtitle may be cited as the “Advanced Geo-  
11 thermal Energy Research and Development Act of 2007”.

12 **SEC. 4202. FINDINGS.**

13       The Congress finds the following:

14           (1) The United States has a critical national in-  
15 terest in developing clean, domestic, renewable  
16 sources of energy in order to mitigate the causes of  
17 climate change, reduce other environmental impacts  
18 of energy production, increase national security, im-  
19 prove public health, and bolster economic stability.

20           (2) Geothermal energy is a renewable energy re-  
21 source.

22           (3) Geothermal energy is unusual among renew-  
23 able energy sources because of its ability to provide  
24 an uninterrupted supply of baseload electricity.

25           (4) Recently published assessments by rep-  
26 utable experts, including the Massachusetts Institute

1 of Technology, the Western Governors Association,  
2 and the National Renewable Energy Laboratory, in-  
3 dicate that the Nation’s geothermal resources are  
4 widely distributed, vast in size, and barely tapped.

5 (5) Sustained and expanded research, develop-  
6 ment, demonstration, and commercial application  
7 programs are needed to locate and characterize geo-  
8 thermal resources, and to develop the technologies  
9 that will enable their widespread commercial devel-  
10 opment.

11 (6) Federal support is critical to reduce the fi-  
12 nancial risk associated with developing new geo-  
13 thermal technologies, thereby encouraging the pri-  
14 vate sector investment necessary to make geothermal  
15 resources commercially viable as a source of electric  
16 power and for other applications.

17 **SEC. 4203. DEFINITIONS.**

18 For purposes of this subtitle:

19 (1) ENGINEERED.—When referring to enhanced  
20 geothermal systems, the term “engineered” means  
21 subjected to intervention, including intervention to  
22 address one or more of the following issues:

23 (A) Lack of effective permeability or poros-  
24 ity or open fracture connectivity within the res-  
25 ervoir.

1           (B) Insufficient contained geofluid in the  
2           reservoir.

3           (C) A low average geothermal gradient,  
4           which necessitates deeper drilling.

5           (2) ENHANCED GEOTHERMAL SYSTEMS.—The  
6           term “enhanced geothermal systems” means geo-  
7           thermal reservoir systems that are engineered, as op-  
8           posed to occurring naturally.

9           (3) GEOFLUID.—The term “geofluid” means  
10          any fluid used to extract thermal energy from the  
11          Earth which is transported to the surface for direct  
12          use or electric power generation, except that such  
13          term shall not include oil or natural gas.

14          (4) GEOPRESSURED RESOURCES.—The term  
15          “geopressured resources” mean geothermal deposits  
16          found in sedimentary rocks under higher than nor-  
17          mal pressure and saturated with gas or methane.

18          (5) GEOTHERMAL.—The term “geothermal” re-  
19          fers to heat energy stored in the Earth’s crust that  
20          can be accessed for direct use or electric power gen-  
21          eration.

22          (6) HYDROTHERMAL.—The term “hydro-  
23          thermal” refers to naturally occurring subsurface  
24          reservoirs of hot water or steam.

1           (7) SECRETARY.—The term “Secretary” means  
2           the Secretary of Energy.

3           (8) SYSTEMS APPROACH.—The term “systems  
4           approach” means an approach to solving problems  
5           or designing systems that attempts to optimize the  
6           performance of the overall system, rather than a  
7           particular component of the system.

8 **SEC. 4204. HYDROTHERMAL RESEARCH AND DEVELOP-**  
9           **MENT.**

10          (a) IN GENERAL.—The Secretary shall support pro-  
11          grams of research, development, demonstration, and com-  
12          mercial application to expand the use of geothermal en-  
13          ergy production from hydrothermal systems, including the  
14          programs described in subsection (b).

15          (b) PROGRAMS.—

16                (1) ADVANCED HYDROTHERMAL RESOURCE  
17                TOOLS.—The Secretary, in consultation with other  
18                appropriate agencies, shall support a program to de-  
19                velop advanced geophysical, geochemical, and geo-  
20                logic tools to assist in locating hidden hydrothermal  
21                resources, and to increase the reliability of site char-  
22                acterization before, during, and after initial drilling.  
23                The program shall develop new prospecting tech-  
24                niques to assist in prioritization of targets for char-



1 nologies for under-reaming, multilateral completions,  
2 high-temperature logging, and logging while drilling.

3 (b) RESERVOIR PERFORMANCE MODELING.—The  
4 Secretary shall support a program of research, develop-  
5 ment, demonstration, and commercial application of mod-  
6 els of geothermal reservoir performance, with an emphasis  
7 on accurately modeling performance over time. Models  
8 shall be developed to assist both in the development of geo-  
9 thermal reservoirs and to more accurately account for  
10 stress-related effects in stimulated hydrothermal and en-  
11 hanced geothermal systems production environments.

12 (c) ENVIRONMENTAL IMPACTS.—The Secretary  
13 shall—

14 (1) support a program of research, develop-  
15 ment, demonstration, and commercial application of  
16 technologies and practices designed to mitigate or  
17 preclude potential adverse environmental impacts of  
18 geothermal energy development, production or use,  
19 and seek to ensure that geothermal energy develop-  
20 ment is consistent with the highest practicable  
21 standards of environmental stewardship; and

22 (2) in conjunction with the Assistant Adminis-  
23 trator for Research and Development at the Envi-  
24 ronmental Protection Agency, support a research  
25 program to identify potential environmental impacts

1 of geothermal energy development, production, and  
2 use, and ensure that the program described in para-  
3 graph (1) addresses such impacts, including effects  
4 on groundwater and local hydrology.

5 Any potential environmental impacts identified as part of  
6 the development, production, and use of geothermal en-  
7 ergy shall be measured and examined against the potential  
8 emissions offsets of greenhouses gases gained by geo-  
9 thermal energy development, production, and use.

10 **SEC. 4206. ENHANCED GEOTHERMAL SYSTEMS RESEARCH**  
11 **AND DEVELOPMENT.**

12 (a) IN GENERAL.—The Secretary shall support a  
13 program of research, development, demonstration, and  
14 commercial application for enhanced geothermal systems,  
15 including the programs described in subsection (b).

16 (b) PROGRAMS.—

17 (1) ENHANCED GEOTHERMAL SYSTEMS TECH-  
18 NOLOGIES.—The Secretary shall support a program  
19 of research, development, demonstration, and com-  
20 mercial application of the technologies and knowl-  
21 edge necessary for enhanced geothermal systems to  
22 advance to a state of commercial readiness, includ-  
23 ing advances in—

24 (A) reservoir stimulation;

- 1 (B) reservoir characterization, monitoring,  
2 and modeling;  
3 (C) stress mapping;  
4 (D) tracer development;  
5 (E) three-dimensional tomography;  
6 (F) understanding seismic effects of res-  
7 ervoir engineering and stimulation; and  
8 (G) laser-based drilling technology.

9 (2) ENHANCED GEOTHERMAL SYSTEMS RES-  
10 ERVOIR STIMULATION.—

11 (A) PROGRAM.—In collaboration with in-  
12 dustry partners, the Secretary shall support a  
13 program of research, development, and dem-  
14 onstration of enhanced geothermal systems res-  
15 ervoir stimulation technologies and techniques.  
16 A minimum of 5 sites shall be selected in loca-  
17 tions that show particular promise for enhanced  
18 geothermal systems development. Each site  
19 shall—

20 (i) represent a different class of sub-  
21 surface geologic environments; and

22 (ii) take advantage of an existing site  
23 where subsurface characterization has been  
24 conducted or existing drill holes can be uti-  
25 lized, if possible.

1 (B) CONSIDERATION OF EXISTING  
2 SITES.—The following 2 sites, where Depart-  
3 ment of Energy and industry cooperative en-  
4 hanced geothermal systems projects are already  
5 underway, may be considered for inclusion  
6 among the sites selected under subparagraph  
7 (A):

8 (i) Desert Peak, Nevada.

9 (ii) Coso, California.

10 **SEC. 4207. GEOTHERMAL ENERGY PRODUCTION FROM OIL**  
11 **AND GAS FIELDS AND RECOVERY AND PRO-**  
12 **DUCTION OF GEOPRESSURED GAS RE-**  
13 **SOURCES.**

14 (a) IN GENERAL.—The Secretary shall establish a  
15 program of research, development, demonstration, and  
16 commercial application to support development of geo-  
17 thermal energy production from oil and gas fields and pro-  
18 duction and recovery of energy from geopressured re-  
19 sources. In addition, the Secretary shall conduct such sup-  
20 porting activities including research, resource character-  
21 ization, and technology development as necessary.

22 (b) GEOTHERMAL ENERGY PRODUCTION FROM OIL  
23 AND GAS FIELDS.—The Secretary shall implement a  
24 grant program in support of geothermal energy production  
25 from oil and gas fields. The program shall include grants

1 for a total of not less than three demonstration projects  
2 of the use of geothermal techniques such as organic  
3 rankine cycle systems at marginal, unproductive, and pro-  
4 ductive oil and gas wells. The Secretary shall, to the extent  
5 practicable and in the public interest, make awards that—

6           (1) include not less than five oil or gas well  
7 sites per project award;

8           (2) use a range of oil or gas well hot water  
9 source temperatures from 150 degrees Fahrenheit to  
10 300 degrees Fahrenheit;

11           (3) cover a range of sizes up to one megawatt;

12           (4) are located at a range of sites;

13           (5) can be replicated at a wide range of sites;

14           (6) facilitate identification of optimum tech-  
15 niques among competing alternatives;

16           (7) include business commercialization plans  
17 that have the potential for production of equipment  
18 at high volumes and operation and support at a  
19 large number of sites; and

20           (8) satisfy other criteria that the Secretary de-  
21 termines are necessary to carry out the program and  
22 collect necessary data and information.

23 The Secretary shall give preference to assessments that  
24 address multiple elements contained in paragraphs (1)  
25 through (8).

1 (c) GRANT AWARDS.—Each grant award for dem-  
2 onstration of geothermal technology such as organic  
3 rankine cycle systems at oil and gas wells made by the  
4 Secretary under subsection (b) shall include—

5 (1) necessary and appropriate site engineering  
6 study;

7 (2) detailed economic assessment of site specific  
8 conditions;

9 (3) appropriate feasibility studies to determine  
10 whether the demonstration can be replicated;

11 (4) design or adaptation of existing technology  
12 for site specific circumstances or conditions;

13 (5) installation of equipment, service, and sup-  
14 port;

15 (6) operation for a minimum of one year and  
16 monitoring for the duration of the demonstration;  
17 and

18 (7) validation of technical and economic as-  
19 sumptions and documentation of lessons learned.

20 (d) GEOPRESSURED GAS RESOURCE RECOVERY AND  
21 PRODUCTION.—(1) The Secretary shall implement a pro-  
22 gram to support the research, development, demonstra-  
23 tion, and commercial application of cost-effective tech-  
24 niques to produce energy from geopressured resources sit-  
25 uated in and near the Gulf of Mexico.

1           (2) The Secretary shall solicit preliminary engineer-  
2 ing designs for geopressured resources production and re-  
3 covery facilities.

4           (3) Based upon a review of the preliminary designs,  
5 the Secretary shall award grants, which may be cost-  
6 shared, to support the detailed development and comple-  
7 tion of engineering, architectural and technical plans need-  
8 ed to support construction of new designs.

9           (4) Based upon a review of the final design plans  
10 above, the Secretary shall award cost-shared development  
11 and construction grants for demonstration geopressured  
12 production facilities that show potential for economic re-  
13 covery of the heat, kinetic energy and gas resources from  
14 geopressured resources.

15           (e) COMPETITIVE GRANT SELECTION.—Not less than  
16 90 days after the date of the enactment of this Act, the  
17 Secretary shall conduct a national solicitation for applica-  
18 tions for grants under the programs outlined in sub-  
19 sections (b) and (d). Grant recipients shall be selected on  
20 a competitive basis based on criteria in the respective sub-  
21 section.

22           (f) WELL DRILLING.—No funds may be used under  
23 this section for the purpose of drilling new wells.

1 **SEC. 4208. COST SHARING AND PROPOSAL EVALUATION.**

2 (a) FEDERAL SHARE.—(1) The Federal share of  
3 costs of projects funded under this subtitle shall be in ac-  
4 cordance with section 988 of the Energy Policy Act of  
5 2005.

6 (2) The Secretary may waive the Federal cost share  
7 requirement for grants awarded to universities, national  
8 laboratories, or similar noncommercial entities awarded  
9 grants under this subtitle.

10 (3) The Secretary shall allow for a competitive bid-  
11 ding process to play a role in determining the final cost-  
12 share ratio.

13 (b) ORGANIZATION AND ADMINISTRATION OF PRO-  
14 GRAMS.—Programs under this subtitle shall incorporate  
15 the following organizational and administrative elements:

16 (1) Non-Federal participants shall be chosen  
17 through a competitive selection process.

18 (2) The request for proposals for each program  
19 shall stipulate, at a minimum, the following:

20 (A) The non-Federal funding requirements  
21 for projects.

22 (B) The funding mechanism to be used  
23 (i.e. grants, contracts, or cooperative agree-  
24 ments).

25 (C) Milestones and a schedule for comple-  
26 tion.

1 (D) Criteria for evaluating proposals.

2 (3) In evaluating proposals, the Secretary shall  
3 give priority to proposals that draw on relevant ex-  
4 pertise from industry, academia, and the national  
5 laboratories, as appropriate.

6 (4) The Secretary shall coordinate with, and  
7 where appropriate may provide funds in furtherance  
8 of the purposes of this subtitle to, other Department  
9 of Energy research and development programs fo-  
10 cused on drilling, subsurface characterization, and  
11 other related technologies.

12 (5) In evaluating proposals, the Secretary shall  
13 consult with relevant experts from industry, aca-  
14 demia, and the national laboratories, as appropriate.

15 (6) In evaluating proposals, the Secretary shall  
16 give priority to proposals that demonstrate clear evi-  
17 dence of employing a systems approach.

18 (7) In evaluating proposals for projects with a  
19 field component, the Secretary shall, where appro-  
20 priate, give priority consideration to proposals that  
21 contain provisions to study local environmental im-  
22 pacts of the technologies developed or the operations  
23 undertaken.

24 (8) In evaluating proposals, the Secretary, in  
25 coordination with other appropriate agencies, shall

1 seek to ensure that no funding authorized under this  
2 subtitle is awarded to any project that would result  
3 in adverse impacts to land, water, or other resources  
4 within the National Wilderness Preservation System,  
5 the National Park System, the National Wildlife  
6 Refuge System, the National Landscape Conserva-  
7 tion System, the National Wild and Scenic Rivers  
8 System, the National Trails System, any National  
9 Monument, any Wilderness Study Area, any Re-  
10 search Natural Area, any National Marine Sanc-  
11 tuary, any Inventoried Roadless Area, or any Area  
12 of Critical Environmental Concern.

13 (9) Scientific data collected as a result of any  
14 project supported with funds provided under this  
15 subtitle shall be made available to the public.

16 **SEC. 4209. CENTERS FOR GEOTHERMAL TECHNOLOGY**  
17 **TRANSFER.**

18 (a) IN GENERAL.—The Secretary shall award grants  
19 to institutions of higher education (or consortia thereof)  
20 to establish 2 Centers for Geothermal Technology Trans-  
21 fer.

22 (b) CENTERS.—

23 (1) HYDROTHERMAL CENTER.—The purpose of  
24 one Technology Transfer Center shall be to serve as  
25 an information clearinghouse for the geothermal in-

1 industry, collecting and disseminating information on  
2 best practices in all areas related to developing and  
3 managing hydrothermal resources, including data  
4 available for disclosure as provided under section  
5 4208(b)(9). This Center shall be based at the insti-  
6 tution west of the Rocky Mountains that the Sec-  
7 retary considers to be best suited to the purpose.  
8 The Center shall collect and disseminate information  
9 on all subjects germane to the development and user  
10 of hydrothermal systems, including—

- 11 (A) resource location;
- 12 (B) reservoir characterization, monitoring,  
13 and modeling;
- 14 (C) drilling techniques;
- 15 (D) reservoir management techniques; and
- 16 (E) technologies for electric power conver-  
17 sion or direct use of geothermal energy.

18 (2) ENHANCED GEOTHERMAL SYSTEMS CEN-  
19 TER.—The purpose of a second Technology Transfer  
20 Center shall be to serve as an information clearing-  
21 house for the geothermal industry, collecting and  
22 disseminating information on best practices in all  
23 areas related to developing and managing enhanced  
24 geothermal systems resources, including data avail-  
25 able for disclosure as provided under section

1 4208(b)(9). This Center is encouraged to seek op-  
2 portunities to coordinate efforts and share informa-  
3 tion with international partners engaged in research  
4 and development of enhanced geothermal systems or  
5 engaged in collection of data related to enhanced  
6 geothermal systems development. This Center shall  
7 be based at an academic institution east of the  
8 Rocky Mountains which, in the opinion of the Sec-  
9 retary, is best suited to provide national leadership  
10 on enhanced geothermal systems-related issues. The  
11 Center shall collect and disseminate information on  
12 all subjects germane to the development and use of  
13 enhanced geothermal systems.

14 (c) AWARD DURATION.—An award made by the Sec-  
15 retary under this section shall be for an initial period of  
16 5 years, and may be renewed for additional 5-year periods  
17 on the basis of—

18 (1) satisfactory performance in meeting the  
19 goals of the research plan proposed by the Center;  
20 and

21 (2) other requirements as specified by the Sec-  
22 retary.

23 **SEC. 4210. GEOPOWERING AMERICA.**

24 The Secretary shall expand the Department of Ener-  
25 gy's GeoPowering the West program to extend its geo-

1 thermal technology transfer activities throughout the en-  
2 tire United States. The program shall be renamed  
3 “GeoPowering America”. The program shall continue to  
4 be based in the Department of Energy office in Golden,  
5 Colorado.

6 **SEC. 4211. EDUCATIONAL PILOT PROGRAM.**

7       The Secretary shall seek to award grant funding, on  
8 a competitive basis, to an institution of higher education  
9 for a geothermal-powered energy generation facility on the  
10 institution’s campus. The purpose of the facility shall be  
11 to provide electricity and space heating. The facility shall  
12 also serve as an educational resource to students in rel-  
13 evant fields of study, and the data generated by the facility  
14 shall be available to students and the general public. The  
15 total funding award shall not exceed \$2,000,000.

16 **SEC. 4212. REPORTS.**

17       (a) **REPORTS ON ADVANCED USES OF GEOTHERMAL**  
18 **ENERGY.**—Not later than 1 year, 3 years, and 5 years,  
19 after the date of enactment of this Act, the Secretary shall  
20 report to the Committee on Science and Technology of the  
21 House of Representatives and the Committee on Energy  
22 and Natural Resources of the Senate on advanced con-  
23 cepts and technologies to maximize the geothermal re-  
24 source potential of the United States. The reports shall  
25 include—

- 1 (1) the use of carbon dioxide as an alternative
- 2 geofluid with potential carbon sequestration benefits;
- 3 (2) mineral recovery from geofluids;
- 4 (3) use of geothermal energy to produce hydro-
- 5 gen;
- 6 (4) use of geothermal energy to produce
- 7 biofuels;
- 8 (5) use of geothermal heat for oil recovery from
- 9 oil shales and tar sands; and
- 10 (6) other advanced geothermal technologies, in-
- 11 cluding advanced drilling technologies and advanced
- 12 power conversion technologies.

13 (b) PROGRESS REPORTS.—(1) Not later than 36  
14 months after the date of enactment of this Act, the Sec-  
15 retary shall submit to the Committee on Science and Tech-  
16 nology of the House of Representatives and the Committee  
17 on Energy and Natural Resources of the Senate an in-  
18 terim report describing the progress made under this sub-  
19 title. At the end of 60 months, the Secretary shall submit  
20 to Congress a report on the results of projects undertaken  
21 under this subtitle and other such information the Sec-  
22 retary considers appropriate.

23 (2) As necessary, the Secretary shall report to the  
24 Congress on any legal, regulatory, or other barriers en-  
25 countered that hinder economic development of these re-

1 sources, and provide recommendations on legislative or  
2 other actions needed to address such impediments.

3 **SEC. 4213. APPLICABILITY OF OTHER LAWS.**

4 Nothing in this subtitle shall be construed as waiving  
5 the applicability of any requirement under any environ-  
6 mental or other Federal or State law.

7 **SEC. 4214. AUTHORIZATION OF APPROPRIATIONS.**

8 There are authorized to be appropriated to the Sec-  
9 retary to carry out this subtitle \$90,000,000 for each of  
10 the fiscal years 2008 through 2012, of which \$10,000,000  
11 for each fiscal year shall be for carrying out section 4207.  
12 There are also authorized to be appropriated to the Sec-  
13 retary for the Intermountain West Geothermal Consor-  
14 tium \$5,000,000 for each of the fiscal years 2008 through  
15 2012.

16 **Subtitle D—Solar Energy**

17 **SEC. 4301. SHORT TITLE.**

18 This subtitle may be cited as the “Solar Energy Re-  
19 search and Advancement Act of 2007”.

20 **SEC. 4302. DEFINITIONS.**

21 For purposes of this subtitle:

22 (1) The term “Department” means the Depart-  
23 ment of Energy.

24 (2) The term “Secretary” means the Secretary  
25 of Energy.

1 **SEC. 4303. THERMAL ENERGY STORAGE RESEARCH AND**  
2 **DEVELOPMENT PROGRAM.**

3 (a) ESTABLISHMENT.—The Secretary shall establish  
4 a program of research and development to provide lower  
5 cost and more viable thermal energy storage technologies  
6 to enable the shifting of electric power loads on demand  
7 and extend the operating time of concentrating solar  
8 power electric generating plants.

9 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the Secretary for car-  
11 rying out this section \$5,000,000 for fiscal year 2008,  
12 \$7,000,000 for fiscal year 2009, \$9,000,000 for fiscal year  
13 2010, \$10,000,000 for fiscal year 2011, and \$12,000,000  
14 for fiscal year 2012.

15 **SEC. 4304. CONCENTRATING SOLAR POWER COMMERCIAL**  
16 **APPLICATION STUDIES.**

17 (a) INTEGRATION.—The Secretary shall conduct a  
18 study on methods to integrate concentrating solar power  
19 into regional electricity transmission systems, and to iden-  
20 tify new transmission or transmission upgrades needed to  
21 bring electricity from high concentrating solar power re-  
22 source areas to growing electric power load centers  
23 throughout the United States. The study shall analyze and  
24 assess cost-effective approaches for management and  
25 large-scale integration of concentrating solar power into  
26 regional electric transmission grids to improve electric reli-

1 ability, to efficiently manage load, and to reduce demand  
2 on the natural gas transmission system for electric power.  
3 The Secretary shall submit a report to Congress on the  
4 results of this study not later than 12 months after the  
5 date of enactment of this Act.

6 (b) WATER CONSUMPTION.—Not later than 6  
7 months after the date of the enactment of this Act, the  
8 Secretary of Energy shall transmit to Congress a report  
9 on the results of a study on methods to reduce the amount  
10 of water consumed by concentrating solar power systems.

11 **SEC. 4305. SOLAR ENERGY CURRICULUM DEVELOPMENT**  
12 **AND CERTIFICATION GRANTS.**

13 (a) ESTABLISHMENT.—The Secretary shall establish  
14 in the Office of Solar Energy Technologies a competitive  
15 grant program to create and strengthen solar industry  
16 workforce training and internship programs in installa-  
17 tion, operation, and maintenance of solar energy products.  
18 The goal of this program is to ensure a supply of well-  
19 trained individuals to support the expansion of the solar  
20 energy industry.

21 (b) AUTHORIZED ACTIVITIES.—Grant funds may be  
22 used to support the following activities:

23 (1) Creation and development of a solar energy  
24 curriculum appropriate for the local educational, en-

1       trepreneurial, and environmental conditions, includ-  
2       ing curriculum for community colleges.

3               (2) Support of certification programs, such as  
4       the North American Board of Certified Energy  
5       Practitioners, for individual solar energy system in-  
6       stallers, instructors, and training programs.

7               (3) Internship programs that provide hands-on  
8       participation by students in commercial applications.

9               (4) Activities required to obtain certification of  
10      training programs and facilities by the Institute of  
11      Sustainable Power or an equivalent industry-accept-  
12      ed quality-control certification program.

13              (5) Incorporation of solar-specific learning mod-  
14      ules into traditional occupational training and in-  
15      ternship programs for construction-related trades.

16              (6) The purchase of equipment necessary to  
17      carry out activities under this section.

18              (7) Support of programs that provide guidance  
19      and updates to solar energy curriculum instructors.

20      (c) ADMINISTRATION OF GRANTS.—Grants may be  
21      awarded under this section for up to 3 years. The Sec-  
22      retary shall award grants to ensure sufficient geographic  
23      distribution of training programs nationally. Grants shall  
24      only be awarded for programs certified by the Institute  
25      of Sustainable Power or an equivalent industry-accepted

1 quality-control certification institution, or for new and  
2 growing programs with a credible path to certification.  
3 Due consideration shall be given to women, underrep-  
4 resented minorities, and persons with disabilities.

5 (d) REPORT.—The Secretary shall make public, via  
6 the website of the Department or upon request, informa-  
7 tion on the name and institution for all grants awarded  
8 under this section, including a brief description of the  
9 project as well as the grant award amount.

10 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
11 are authorized to be appropriated to the Secretary for car-  
12 rying out this section \$10,000,000 for each of the fiscal  
13 years 2008 through 2012.

14 **SEC. 4306. DAYLIGHTING SYSTEMS AND DIRECT SOLAR**  
15 **LIGHT PIPE TECHNOLOGY.**

16 (a) ESTABLISHMENT.—The Secretary shall establish  
17 a program of research and development to provide assist-  
18 ance in the demonstration and commercial application of  
19 direct solar renewable energy sources to provide alter-  
20 natives to traditional power generation for lighting and il-  
21 lumination, including light pipe technology, and to pro-  
22 mote greater energy conservation and improved efficiency.  
23 All direct solar renewable energy devices supported under  
24 this program shall have the capability to provide measur-

1 able data on the amount of kilowatt-hours saved over the  
2 traditionally powered light sources they have replaced.

3 (b) REPORTING.—The Secretary shall transmit to  
4 Congress an annual report assessing the measurable data  
5 derived from each project in the direct solar renewable en-  
6 ergy sources program and the energy savings resulting  
7 from its use.

8 (c) DEFINITIONS.—For purposes of this section—

9 (1) the term “direct solar renewable energy”  
10 means energy from a device that converts sunlight  
11 into useable light within a building, tunnel, or other  
12 enclosed structure, replacing artificial light gen-  
13 erated by a light fixture and doing so without the  
14 conversion of the sunlight into another form of en-  
15 ergy; and

16 (2) the term “light pipe” means a device de-  
17 signed to transport visible solar radiation from its  
18 collection point to the interior of a building while ex-  
19 cluding interior heat gain in the nonheating season.

20 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
21 are authorized to be appropriated to the Secretary for car-  
22 rying out this section \$3,500,000 for each of the fiscal  
23 years 2008 through 2012.

1 **SEC. 4307. SOLAR AIR CONDITIONING RESEARCH AND DE-**  
2 **VELOPMENT PROGRAM.**

3 (a) **ESTABLISHMENT.**—The Secretary shall establish  
4 a research, development, and demonstration program to  
5 promote less costly and more reliable decentralized distrib-  
6 uted solar-powered air conditioning for individuals and  
7 businesses.

8 (b) **AUTHORIZED ACTIVITIES.**—Grants made avail-  
9 able under this section may be used to support the fol-  
10 lowing activities:

11 (1) Advancing solar thermal collectors, includ-  
12 ing concentrating solar thermal and electric systems,  
13 flat plate and evacuated tube collector performance.

14 (2) Achieving technical and economic integra-  
15 tion of solar-powered distributed air-conditioning  
16 systems with existing hot water and storage systems  
17 for residential applications.

18 (3) Designing and demonstrating mass manu-  
19 facturing capability to reduce costs of modular  
20 standardized solar-powered distributed air condi-  
21 tioning systems and components.

22 (4) Improving the efficiency of solar-powered  
23 distributed air-conditioning to increase the effective-  
24 ness of solar-powered absorption chillers, solar-driv-  
25 en compressors and condensers, and cost-effective  
26 precooling approaches.

1           (5) Researching and comparing performance of  
2           solar-powered distributed air conditioning systems in  
3           different regions of the country, including potential  
4           integration with other onsite systems, such as solar,  
5           biogas, geothermal heat pumps, and propane assist  
6           or combined propane fuel cells, with a goal to de-  
7           velop site-specific energy production and manage-  
8           ment systems that ease fuel and peak utility loading.

9           (c) COST SHARING.—The non-Federal share of re-  
10          search and development projects supported under this sec-  
11          tion shall be not less than 20 percent, and for demonstra-  
12          tion projects shall be not less than 50 percent.

13          (d) AUTHORIZATION OF APPROPRIATIONS.—There  
14          are authorized to be appropriated to the Secretary for car-  
15          rying out this section \$2,500,000 for each of the fiscal  
16          years 2008 through 2012.

17          **SEC. 4308. PHOTOVOLTAIC DEMONSTRATION PROGRAM.**

18          (a) IN GENERAL.—The Secretary shall establish a  
19          program of grants to States to demonstrate advanced pho-  
20          tovoltaic technology.

21          (b) REQUIREMENTS.—

22                  (1) ABILITY TO MEET REQUIREMENTS.—To re-  
23          ceive funding under the program under this section,  
24          a State must submit a proposal that demonstrates,

1 to the satisfaction of the Secretary, that the State  
2 will meet the requirements of subsection (f).

3 (2) COMPLIANCE WITH REQUIREMENTS.—If a  
4 State has received funding under this section for the  
5 preceding year, the State must demonstrate, to the  
6 satisfaction of the Secretary, that it complied with  
7 the requirements of subsection (f) in carrying out  
8 the program during that preceding year, and that it  
9 will do so in the future, before it can receive further  
10 funding under this section.

11 (3) FUNDING ALLOCATION.—Each State sub-  
12 mitting a qualifying proposal shall receive funding  
13 under the program based on the proportion of  
14 United States population in the State according to  
15 the 2000 census. In each fiscal year, the portion of  
16 funds attributable under this paragraph to States  
17 that have not submitted qualifying proposals in the  
18 time and manner specified by the Secretary shall be  
19 distributed pro rata to the States that have sub-  
20 mitted qualifying proposals in the specified time and  
21 manner.

22 (c) COMPETITION.—If more than \$25,000,000 is  
23 available for the program under this section for any fiscal  
24 year, the Secretary shall allocate 75 percent of the total  
25 amount of funds available according to subsection (b)(3),

1 and shall award the remaining 25 percent on a competitive  
2 basis to the States with the proposals the Secretary con-  
3 siders most likely to encourage the widespread adoption  
4 of photovoltaic technologies.

5 (d) PROPOSALS.—Not later than 6 months after the  
6 date of enactment of this Act, and in each subsequent fis-  
7 cal year for the life of the program, the Secretary shall  
8 solicit proposals from the States to participate in the pro-  
9 gram under this section.

10 (e) COMPETITIVE CRITERIA.—In awarding funds in  
11 a competitive allocation under subsection (c), the Sec-  
12 retary shall consider—

13 (1) the likelihood of a proposal to encourage the  
14 demonstration of, or lower the costs of, advanced  
15 photovoltaic technologies; and

16 (2) the extent to which a proposal is likely to—

17 (A) maximize the amount of photovoltaics  
18 demonstrated;

19 (B) maximize the proportion of non-Fed-  
20 eral cost share; and

21 (C) limit State administrative costs.

22 (f) STATE PROGRAM.—A program operated by a  
23 State with funding under this section shall provide com-  
24 petitive awards for the demonstration of advanced photo-  
25 voltaic technologies. Each State program shall—

1           (1) require a contribution of at least 60 percent  
2           per award from non-Federal sources, which may in-  
3           clude any combination of State, local, and private  
4           funds, except that at least 10 percent of the funding  
5           must be supplied by the State;

6           (2) endeavor to fund recipients in the commer-  
7           cial, industrial, institutional, governmental, and resi-  
8           dential sectors;

9           (3) limit State administrative costs to no more  
10          than 10 percent of the grant;

11          (4) report annually to the Secretary on—

12                (A) the amount of funds disbursed;

13                (B) the amount of photovoltaics purchased;

14                and

15                (C) the results of the monitoring under  
16          paragraph (5);

17          (5) provide for measurement and verification of  
18          the output of a representative sample of the  
19          photovoltaics systems demonstrated throughout the  
20          average working life of the systems, or at least 20  
21          years; and

22          (6) require that applicant buildings must have  
23          received an independent energy efficiency audit dur-  
24          ing the 6-month period preceding the filing of the  
25          application.

1 (g) UNEXPENDED FUNDS.—If a State fails to expend  
2 any funds received under subsection (b) or (c) within 3  
3 years of receipt, such remaining funds shall be returned  
4 to the Treasury.

5 (h) REPORTS.—The Secretary shall report to Con-  
6 gress 5 years after funds are first distributed to the States  
7 under this section—

8 (1) the amount of photovoltaics demonstrated;

9 (2) the number of projects undertaken;

10 (3) the administrative costs of the program;

11 (4) the amount of funds that each State has  
12 not received because of a failure to submit a quali-  
13 fying proposal, as described in subsection (b)(3);

14 (5) the results of the monitoring under sub-  
15 section (f)(5); and

16 (6) the total amount of funds distributed, in-  
17 cluding a breakdown by State.

18 (i) AUTHORIZATION OF APPROPRIATIONS.—There  
19 are authorized to be appropriated to the Secretary for the  
20 purposes of carrying out this section—

21 (1) \$15,000,000 for fiscal year 2008;

22 (2) \$30,000,000 for fiscal year 2009;

23 (3) \$45,000,000 for fiscal year 2010;

24 (4) \$60,000,000 for fiscal year 2011; and

25 (5) \$70,000,000 for fiscal year 2012.

1                   **Subtitle E—Biofuels**

2   **SEC. 4401. SHORT TITLE.**

3           This subtitle may be cited as the “Biofuels Research  
4 and Development Enhancement Act”.

5   **SEC. 4402. BIOFUELS AND BIOREFINERY INFORMATION**  
6                   **CENTER.**

7           (a) **IN GENERAL.**—The Secretary of Energy (in this  
8 subtitle referred to as the “Secretary”), in cooperation  
9 with the Secretary of Agriculture, shall establish a tech-  
10 nology transfer center to make available information on  
11 research, development, and commercial application of  
12 technologies related to biofuels and biorefineries, includ-  
13 ing—

14                   (1) biochemical and thermochemical conversion  
15 technologies capable of making fuels from  
16 lignocellulosic feedstocks;

17                   (2) biotechnology processes capable of making  
18 biofuels with an emphasis on development of bio-  
19 refinery technologies using enzyme-based processing  
20 systems;

21                   (3) biogas collection and production tech-  
22 nologies suitable for vehicular use;

23                   (4) cost-effective reforming technologies that  
24 produce hydrogen fuel from biogas sources;

1           (5) biogas production from cellulosic and recy-  
2           cled organic waste sources and advancement of gas-  
3           eous storage systems and advancement of gaseous  
4           storage systems; and

5           (6) other advanced processes and technologies  
6           that will enable the development of biofuels.

7           (b) ADMINISTRATION.—In administering this section,  
8           the Secretary shall ensure that the center shall—

9           (1) continually update information provided by  
10          the center;

11          (2) make information available on biotechnology  
12          processes; and

13          (3) make information and assistance provided  
14          by the center available for those involved in energy  
15          research, development, demonstration, and commer-  
16          cial application.

17 **SEC. 4403. BIOFUELS AND ADVANCED BIOFUELS INFRA-**  
18 **STRUCTURE.**

19          Section 932 of the Energy Policy Act of 2005 (42  
20          U.S.C. 16232) is amended by adding at the end the fol-  
21          lowing new subsection:

22          “(f) BIOFUELS AND ADVANCED BIOFUELS INFRA-  
23          STRUCTURE.—The Secretary, in consultation with the  
24          Secretary of Transportation and the Assistant Adminis-  
25          trator for Research and Development of the Environ-

1 mental Protection Agency, shall carry out a program of  
2 research, development, and demonstration as it relates to  
3 existing transportation fuel distribution infrastructure and  
4 new alternative distribution infrastructure. The program  
5 shall focus on the physical and chemical properties of  
6 biofuels and efforts to prevent or mitigate against adverse  
7 impacts of those properties in the following areas:

8           “(1) Corrosion of metal, plastic, rubber, cork,  
9           fiberglass, glues, or any other material used in pipes  
10          and storage tanks.

11          “(2) Dissolving of storage tank sediments.

12          “(3) Clogging of filters.

13          “(4) Contamination from water or other  
14          adulterants or pollutants.

15          “(5) Poor flow properties related to low tem-  
16          peratures.

17          “(6) Oxidative and thermal instability in long-  
18          term storage and use.

19          “(7) Microbial contamination.

20          “(8) Problems associated with electrical conduc-  
21          tivity.

22          “(9) Such other areas as the Secretary con-  
23          siders appropriate.”.

1 **SEC. 4404. BIODIESEL.**

2 (a) BIODIESEL STUDY.—Not later than 180 days  
3 after the date of enactment of this Act, the Secretary shall  
4 submit to Congress a report on any research and develop-  
5 ment challenges inherent in increasing to 2.5 percent the  
6 proportion of diesel fuel sold in the United States that  
7 is biodiesel (within the meaning of section 211(o) of the  
8 Clean Air Act).

9 (b) MATERIALS FOR THE ESTABLISHMENT OF  
10 STANDARDS.—The Director of the National Institute of  
11 Standards and Technology shall make publicly available  
12 the physical property data and characterization of bio-  
13 diesel, as is defined in subsection (a), in order to encour-  
14 age the establishment of standards that will promote their  
15 utilization in the transportation and fuel delivery system.

16 **SEC. 4405. BIOGAS.**

17 Not later than 180 days after the date of enactment  
18 of this Act, the Secretary shall submit to Congress a re-  
19 port on any research and development challenges inherent  
20 in increasing to 5 percent of the transportation fuels sold  
21 in the United States fuel with biogas or a blend of biogas  
22 and natural gas.

23 **SEC. 4406. BIORESEARCH CENTERS FOR SYSTEMS BIOLOGY**  
24 **PROGRAM.**

25 Section 977(a)(1) of the Energy Policy Act of 2005  
26 (42 U.S.C. 16317(a)(1)) is amended by inserting before

1 the period at the end the following: “, including the estab-  
2 lishment of at least 5 bioresearch centers of varying sizes,  
3 as appropriate, that focus on biofuels, of which at least  
4 1 center shall be located in each of the 5 Petroleum Ad-  
5 ministration for Defense Districts, which shall be estab-  
6 lished for a period of 5 years, after which the grantee may  
7 reapply for selection on a competitive basis”.

8 **SEC. 4407. GRANTS FOR BIOFUEL PRODUCTION RESEARCH**  
9 **AND DEVELOPMENT IN CERTAIN STATES.**

10 (a) **IN GENERAL.**—The Secretary shall provide  
11 grants to eligible entities for research, development, dem-  
12 onstration, and commercial application of biofuel produc-  
13 tion technologies in States with low rates of ethanol pro-  
14 duction, including low rates of production of cellulosic bio-  
15 mass ethanol, as determined by the Secretary.

16 (b) **ELIGIBILITY.**—To be eligible to receive a grant  
17 under this section, an entity shall—

18 (1)(A) be an institution of higher education (as  
19 defined in section 2 of the Energy Policy Act of  
20 2005 (42 U.S.C. 15801)) located in a State de-  
21 scribed in subsection (a); or

22 (B) be a consortium including at least 1 such  
23 institution of higher education, and industry, State  
24 agencies, Indian tribal agencies, National Labora-

1       tories, or local government agencies located in the  
2       State; and

3               (2) have proven experience and capabilities with  
4       relevant technologies.

5       (c) AUTHORIZATION OF APPROPRIATIONS.—There  
6       are authorized to be appropriated to the Secretary to carry  
7       out this section \$25,000,000 for each of fiscal years 2008  
8       through 2010.

9       **SEC. 4408. BIOREFINERY ENERGY EFFICIENCY.**

10       Section 932 of Energy Policy Act of 2005 (42 U.S.C.  
11       16232), is amended by adding at the end the following  
12       new subsections:

13               “(g) BIOREFINERY ENERGY EFFICIENCY.—The Sec-  
14       retary shall establish a program of research, development,  
15       demonstration, and commercial application for increasing  
16       energy efficiency and reducing energy consumption in the  
17       operation of biorefinery facilities.

18               “(h) RETROFIT TECHNOLOGIES FOR THE DEVELOP-  
19       MENT OF ETHANOL FROM CELLULOSIC MATERIALS.—  
20       The Secretary shall establish a program of research, devel-  
21       opment, demonstration, and commercial application on  
22       technologies and processes to enable biorefineries that ex-  
23       clusively use corn grain or corn starch as a feedstock to  
24       produce ethanol to be retrofitted to accept a range of bio-  
25       mass, including lignocellulosic feedstocks.”.

1 **SEC. 4409. STUDY OF INCREASED CONSUMPTION OF ETH-**  
2 **ANOL-BLENDED GASOLINE WITH HIGHER**  
3 **LEVELS OF ETHANOL.**

4 (a) IN GENERAL.—The Secretary, in cooperation  
5 with the Secretary of Agriculture, the Administrator of the  
6 Environmental Protection Agency, and the Secretary of  
7 Transportation, shall conduct a study of the methods of  
8 increasing consumption in the United States of ethanol-  
9 blended gasoline with levels of ethanol that are not less  
10 than 10 percent and not more than 40 percent.

11 (b) STUDY.—The study under subsection (a) shall in-  
12 clude—

13 (1) a review of production and infrastructure  
14 constraints on increasing consumption of ethanol;

15 (2) an evaluation of the environmental con-  
16 sequences of the ethanol blends described in sub-  
17 section (a) on evaporative and exhaust emissions  
18 from on-road, off-road, and marine vehicle engines;

19 (3) an evaluation of the consequences of the  
20 ethanol blends described in subsection (a) on the op-  
21 eration, durability, and performance of on-road, off-  
22 road, and marine vehicle engines; and

23 (4) an evaluation of the life cycle impact of the  
24 use of the ethanol blends described in subsection (a)  
25 on carbon dioxide and greenhouse gas emissions.

1 (c) REPORT.—Not later than 1 year after the date  
2 of enactment of this Act, the Secretary shall submit to  
3 Congress a report describing the results of the study con-  
4 ducted under this section.

5 **SEC. 4410. STUDY OF OPTIMIZATION OF FLEXIBLE FUELED**  
6 **VEHICLES TO USE E-85 FUEL.**

7 (a) IN GENERAL.—The Secretary, in consultation  
8 with the Secretary of Transportation, shall conduct a  
9 study of whether optimizing flexible fueled vehicles to op-  
10 erate using E-85 fuel would increase the fuel efficiency  
11 of flexible fueled vehicles.

12 (b) REPORT.—Not later than 180 days after the date  
13 of enactment of this Act, the Secretary shall submit to  
14 the Committee on Science and Technology of the House  
15 of Representatives the Committee on Energy and Natural  
16 Resources of the Senate a report that describes the results  
17 of the study under this section, including any rec-  
18 ommendations of the Secretary.

19 **SEC. 4411. STUDY OF ENGINE DURABILITY AND PERFORM-**  
20 **ANCE ASSOCIATED WITH THE USE OF BIO-**  
21 **DIESEL.**

22 (a) IN GENERAL.—Not later than 30 days after the  
23 date of enactment of this Act, the Secretary shall initiate  
24 a study on the effects of the use of biodiesel on the per-  
25 formance and durability of engines and engine systems.

1 (b) COMPONENTS.—The study under this section  
2 shall include—

3 (1) an assessment of whether the use of bio-  
4 diesel lessens the durability and performance of con-  
5 ventional diesel engines and engine systems; and

6 (2) an assessment of the effects referred to in  
7 subsection (a) with respect to biodiesel blends at  
8 varying concentrations, including the following per-  
9 centage concentrations of biodiesel:

10 (A) 5 percent biodiesel.

11 (B) 10 percent biodiesel.

12 (C) 20 percent biodiesel.

13 (D) 30 percent biodiesel.

14 (E) 100 percent biodiesel.

15 (c) REPORT.—Not later than 24 months after the  
16 date of enactment of this Act, the Secretary shall submit  
17 to the Committee on Science and Technology of the House  
18 of Representatives the Committee on Energy and Natural  
19 Resources of the Senate a report that describes the results  
20 of the study under this section, including any rec-  
21 ommendations of the Secretary.

22 **SEC. 4412. BIOENERGY RESEARCH AND DEVELOPMENT, AU-**  
23 **THORIZATION OF APPROPRIATION.**

24 (a) Section 931 of the Energy Policy Act of 2005 (42  
25 U.S.C. 16231) is amended—

1 (1) in subsection (b)—

2 (A) at the end of paragraph (2) by striking  
3 “and”;

4 (B) at the end of paragraph (3) by striking  
5 the period and inserting “; and”; and

6 (C) by adding at the end the following new  
7 paragraph:

8 “(4) \$963,000,000 for fiscal year 2010.”; and  
9 (2) in subsection (c)—

10 (A) in paragraph (2), by striking  
11 “\$251,000,000” and inserting “\$377,000,000”;

12 (B) in paragraph (3), by striking  
13 “\$274,000,000” and inserting “\$398,000,000”;  
14 and

15 (C) by adding at the end the following new  
16 paragraph:

17 “(4) \$419,000,000 for fiscal year 2010, of  
18 which \$150,000,00 shall be for section 932(d).”.

19 **SEC. 4413. ENVIRONMENTAL RESEARCH AND DEVELOP-**  
20 **MENT.**

21 (a) **AMENDMENTS.**—Section 977 of the Energy Pol-  
22 icy Act of 2005 (42 U.S.C. 16317) is amended—

23 (1) in subsection (a)(1), by striking “and com-  
24 putational biology” and inserting “computational bi-  
25 ology, and environmental science”; and

1 (2) in subsection (b)—

2 (A) in paragraph (1), by inserting “in sus-  
3 tainable production systems that reduce green-  
4 house gas emissions” after “hydrogen”;

5 (B) at the end of paragraph (3), by strik-  
6 ing “and”;

7 (C) by redesignating paragraph (4) as  
8 paragraph (5); and

9 (D) by inserting after paragraph (3) the  
10 following new paragraph:

11 “(4) develop cellulosic and other feedstocks that  
12 are less resource and land intensive and that pro-  
13 mote sustainable use of resources, including soil,  
14 water, energy, forests, and land, and ensure protec-  
15 tion of air, water, and soil quality; and”.

16 (b) TOOLS AND EVALUATION.—The Secretary, in  
17 consultation with the Administrator of the Environmental  
18 Protection Agency and the Secretary of Agriculture, shall  
19 establish a research and development program to—

20 (1) improve and develop analytical tools to fa-  
21 cilitate the analysis of life-cycle energy and green-  
22 house gas emissions, including emissions related to  
23 direct and indirect land use changes, attributable to  
24 all potential biofuel feedstocks and production proc-  
25 esses; and

1           (2) promote the systematic evaluation of the  
2           impact of expanded biofuel production on the envi-  
3           ronment, including forestlands, and on the food sup-  
4           ply for humans and animals.

5           (c) **SMALL-SCALE PRODUCTION AND USE OF**  
6 **BIOFUELS.**—The Secretary, in cooperation with the Sec-  
7 retary of Agriculture, shall establish a research and devel-  
8 opment program to facilitate small-scale production, local,  
9 and on-farm use of biofuels, including the development of  
10 small-scale gasification technologies for production of  
11 biofuel from cellulosic feedstocks.

12 **SEC. 4414. STUDY OF OPTIMIZATION OF BIOGAS USED IN**  
13 **NATURAL GAS VEHICLES.**

14           (a) **IN GENERAL.**—The Secretary of Energy shall  
15 conduct a study of methods of increasing the fuel effi-  
16 ciency of vehicles using biogas by optimizing natural gas  
17 vehicle systems that can operate on biogas, including the  
18 advancement of vehicle fuel systems and the combination  
19 of hybrid-electric and plug-in hybrid electric drive plat-  
20 forms with natural gas vehicle systems using biogas.

21           (b) **REPORT.**—Not later than 180 days after the date  
22 of enactment of this Act, the Secretary of Energy shall  
23 submit to the Committee on Energy and Natural Re-  
24 sources of the Senate and the Committee on Science and  
25 Technology of the House of Representatives a report that

1 describes the results of the study, including any rec-  
2 ommendations of the Secretary.

3 **SEC. 4415. STANDARDS FOR BIOFUELS DISPENSERS.**

4       In the absence of appropriate private sector stand-  
5 ards adopted prior to the date of enactment of this Act,  
6 and consistent with the National Technology Transfer and  
7 Advancement Act of 1995, the Secretary of Energy, in  
8 consultation with the Director of the National Institute  
9 of Standards and Technology, shall develop standards for  
10 biofuel dispenser systems in order to promote broader  
11 biofuels adoption and utilization.

12 **SEC. 4416. ALGAL BIOMASS.**

13       Not later than 90 days after the date of enactment  
14 of this Act, the Secretary shall submit to the Committee  
15 on Science and Technology of the House of Representa-  
16 tives and the Committee on Energy and Natural Re-  
17 sources of the Senate a report on the progress of the re-  
18 search and development that is being conducted on the  
19 use of algae as a feedstock for the production of biofuels.  
20 The report shall identify continuing research and develop-  
21 ment challenges and any regulatory or other barriers  
22 found by the Secretary that hinder the use of this re-  
23 source, as well as recommendations on how to encourage  
24 and further its development as a viable transportation  
25 fuel.

1     **Subtitle F—Carbon Capture and**  
2                     **Storage**

3     **SEC. 4501. SHORT TITLE.**

4             This subtitle may be cited as the “Department of En-  
5     ergy Carbon Capture and Storage Research, Development,  
6     and Demonstration Act of 2007”.

7     **SEC. 4502. CARBON CAPTURE AND STORAGE RESEARCH,**  
8                     **DEVELOPMENT, AND DEMONSTRATION PRO-**  
9                     **GRAM.**

10            (a) AMENDMENTS.—Section 963 of the Energy Pol-  
11     icy Act of 2005 (42 U.S.C. 16293) is amended—

12                    (1) in the section heading, by striking “**RE-**  
13                    **SEARCH AND DEVELOPMENT**” and inserting  
14                    “**AND STORAGE RESEARCH, DEVELOPMENT,**  
15                    **AND DEMONSTRATION**”;

16                    (2) in subsection (a)—

17                            (A) by striking “research and develop-  
18                            ment” and inserting “and storage research, de-  
19                            velopment, and demonstration”; and

20                            (B) by striking “capture technologies on  
21                            combustion-based systems” and inserting “cap-  
22                            ture and storage technologies related to electric  
23                            power generating systems”;

24                    (3) in subsection (b)—

1 (A) in paragraph (3), by striking “and” at  
2 the end;

3 (B) in paragraph (4), by striking the pe-  
4 riod at the end and inserting “; and”; and

5 (C) by adding at the end the following:

6 “(5) to expedite and carry out large-scale test-  
7 ing of carbon sequestration systems in a range of ge-  
8 ological formations that will provide information on  
9 the cost and feasibility of deployment of sequestra-  
10 tion technologies.”; and

11 (4) by striking subsection (e) and inserting the  
12 following:

13 “(c) PROGRAMMATIC ACTIVITIES.—

14 “(1) FUNDAMENTAL SCIENCE AND ENGINEER-  
15 ING RESEARCH AND DEVELOPMENT AND DEM-  
16 ONSTRATION SUPPORTING CARBON CAPTURE AND  
17 STORAGE TECHNOLOGIES.—

18 “(A) IN GENERAL.—The Secretary shall  
19 carry out fundamental science and engineering  
20 research (including laboratory-scale experi-  
21 ments, numeric modeling, and simulations) to  
22 develop and document the performance of new  
23 approaches to capture and store carbon dioxide,  
24 or to learn how to use carbon dioxide in prod-

1           ucts to lead to an overall reduction of carbon  
2           dioxide emissions.

3           “(B) PROGRAM INTEGRATION.—The Sec-  
4           retary shall ensure that fundamental research  
5           carried out under this paragraph is appro-  
6           priately applied to energy technology develop-  
7           ment activities and the field testing of carbon  
8           sequestration and carbon use activities, includ-  
9           ing—

10                   “(i) development of new or advanced  
11                   technologies for the capture of carbon diox-  
12                   ide;

13                   “(ii) development of new or advanced  
14                   technologies that reduce the cost and in-  
15                   crease the efficacy of the compression of  
16                   carbon dioxide required for the storage of  
17                   carbon dioxide;

18                   “(iii) modeling and simulation of geo-  
19                   logical sequestration field demonstrations;

20                   “(iv) quantitative assessment of risks  
21                   relating to specific field sites for testing of  
22                   sequestration technologies; and

23                   “(v) research and development of new  
24                   and advanced technologies for carbon use,

1 including recycling and reuse of carbon di-  
2 oxide.

3 “(2) FIELD VALIDATION TESTING ACTIVI-  
4 TIES.—

5 “(A) IN GENERAL.—The Secretary shall  
6 promote, to the maximum extent practicable,  
7 regional carbon sequestration partnerships to  
8 conduct geologic sequestration tests involving  
9 carbon dioxide injection and monitoring, mitiga-  
10 tion, and verification operations in a variety of  
11 candidate geological settings, including—

12 “(i) operating oil and gas fields;

13 “(ii) depleted oil and gas fields;

14 “(iii) unmineable coal seams;

15 “(iv) deep saline formations;

16 “(v) deep geologic systems that may  
17 be used as engineered reservoirs to extract  
18 economical quantities of heat from geo-  
19 thermal resources of low permeability or  
20 porosity;

21 “(vi) deep geologic systems containing  
22 basalt formations; and

23 “(vii) high altitude terrain oil and gas  
24 fields.

1           “(B) OBJECTIVES.—The objectives of tests  
2 conducted under this paragraph shall be—

3           “(i) to develop and validate geo-  
4 physical tools, analysis, and modeling to  
5 monitor, predict, and verify carbon dioxide  
6 containment;

7           “(ii) to validate modeling of geological  
8 formations;

9           “(iii) to refine storage capacity esti-  
10 mated for particular geological formations;

11           “(iv) to determine the fate of carbon  
12 dioxide concurrent with and following in-  
13 jection into geological formations;

14           “(v) to develop and implement best  
15 practices for operations relating to, and  
16 monitoring of, injection and storage of car-  
17 bon dioxide in geologic formations;

18           “(vi) to assess and ensure the safety  
19 of operations related to geological storage  
20 of carbon dioxide;

21           “(vii) to allow the Secretary to pro-  
22 mulgate policies, procedures, requirements,  
23 and guidance to ensure that the objectives  
24 of this subparagraph are met in large-scale  
25 testing and deployment activities for car-

1 bon capture and storage that are funded  
2 by the Department of Energy; and

3 “(viii) to support Environmental Pro-  
4 tection Agency efforts, in consultation with  
5 other agencies, to develop a scientifically  
6 sound regulatory framework to enable com-  
7 mercial-scale sequestration operations  
8 while safeguarding human health and un-  
9 derground sources of drinking water.

10 “(3) LARGE-SCALE CARBON DIOXIDE SEQUES-  
11 TRATION TESTING.—

12 “(A) IN GENERAL.—The Secretary shall  
13 conduct not less than 7 initial large-volume se-  
14 questration tests, not including the FutureGen  
15 project, for geological containment of carbon di-  
16 oxide (at least 1 of which shall be international  
17 in scope) to validate information on the cost  
18 and feasibility of commercial deployment of  
19 technologies for geological containment of car-  
20 bon dioxide.

21 “(B) DIVERSITY OF FORMATIONS TO BE  
22 STUDIED.—In selecting formations for study  
23 under this paragraph, the Secretary shall con-  
24 sider a variety of geological formations across  
25 the United States, and require characterization

1 and modeling of candidate formations, as deter-  
2 mined by the Secretary.

3 “(C) SOURCE OF CARBON DIOXIDE FOR  
4 LARGE-SCALE SEQUESTRATION DEMONSTRA-  
5 TIONS.—In the process of any acquisition of  
6 carbon dioxide for sequestration demonstrations  
7 under subparagraph (A), the Secretary shall  
8 give preference to purchases of carbon dioxide  
9 from industrial and coal-fired electric genera-  
10 tion facilities. To the extent feasible, the Sec-  
11 retary shall prefer test projects from industrial  
12 and coal-fired electric generation facilities that  
13 would facilitate the creation of an integrated  
14 system of capture, transportation and storage  
15 of carbon dioxide. Until coal-fired electric gen-  
16 eration facilities, either new or existing, are op-  
17 erating with carbon dioxide capture tech-  
18 nologies, other industrial sources of carbon di-  
19 oxide should be pursued under this paragraph.  
20 The preference provided for under this subpara-  
21 graph shall not delay the implementation of the  
22 large-scale sequestration tests under this para-  
23 graph.

24 “(D) DEFINITION.—For purposes of this  
25 paragraph, the term ‘large-scale’ means the in-

1           jection of more than 1,000,000 metric tons of  
2           carbon dioxide annually, or a scale that demon-  
3           strably exceeds the necessary thresholds in key  
4           geologic transients to validate the ability con-  
5           tinuously to inject quantities on the order of  
6           several million metric tons of industrial carbon  
7           dioxide annually for a large number of years.

8           “(4) LARGE-SCALE DEMONSTRATION OF CAR-  
9           BON DIOXIDE CAPTURE TECHNOLOGIES.—

10           “(A) IN GENERAL.—The Secretary shall  
11           carry out at least 3 and no more than 5 dem-  
12           onstrations, that include each of the tech-  
13           nologies described in subparagraph (B), for the  
14           large-scale capture of carbon dioxide from in-  
15           dustrial sources of carbon dioxide, at least 2 of  
16           which are facilities that generate electric energy  
17           from fossil fuels. Candidate facilities for other  
18           demonstrations under this paragraph shall in-  
19           clude facilities that refine petroleum, manufac-  
20           ture iron or steel, manufacture cement or ce-  
21           ment clinker, manufacture commodity chemi-  
22           cals, and ethanol and fertilizer plants. Consider-  
23           ation may be given to capture of carbon dioxide  
24           from industrial facilities and electric generation  
25           carbon sources that are near suitable geological

1 reservoirs and could continue sequestration. To  
2 ensure reduced carbon dioxide emissions, the  
3 Secretary shall take necessary actions to pro-  
4 vide for the integration of the program under  
5 this paragraph with the long-term carbon diox-  
6 ide sequestration demonstrations described in  
7 paragraph (3). These actions should not delay  
8 implementation of the large-scale sequestration  
9 tests authorized in paragraph (3).

10 “(B) TECHNOLOGIES.—The technologies  
11 referred to in subparagraph (A) are  
12 precombustion capture, post-combustion cap-  
13 ture, and oxycombustion.

14 “(C) SCOPE OF AWARD.—An award under  
15 this paragraph shall be only for the portion of  
16 the project that carries out the large-scale cap-  
17 ture (including purification and compression) of  
18 carbon dioxide, as well as the cost of transpor-  
19 tation and injection of carbon dioxide.

20 “(5) PREFERENCE IN PROJECT SELECTION  
21 FROM MERITORIOUS PROPOSALS.—In making com-  
22 petitive awards under this subsection, subject to the  
23 requirements of section 989, the Secretary shall—

1           “(A) give preference to proposals from  
2 partnerships among industrial, academic, and  
3 government entities; and

4           “(B) require recipients to provide assur-  
5 ances that all laborers and mechanics employed  
6 by contractors and subcontractors in the con-  
7 struction, repair, or alteration of new or exist-  
8 ing facilities performed in order to carry out a  
9 demonstration or commercial application activ-  
10 ity authorized under this subsection shall be  
11 paid wages at rates not less than those pre-  
12 vailing on similar construction in the locality, as  
13 determined by the Secretary of Labor in ac-  
14 cordance with subchapter IV of chapter 31 of  
15 title 40, United States Code, and the Secretary  
16 of Labor shall, with respect to the labor stand-  
17 ards in this paragraph, have the authority and  
18 functions set forth in Reorganization Plan  
19 Numbered 14 of 1950 (15 F.R. 3176; 5 U.S.C.  
20 Appendix) and section 3145 of title 40, United  
21 States Code.

22           “(6) COST SHARING.—Activities under this sub-  
23 section shall be considered research and development  
24 activities that are subject to the cost-sharing re-  
25 quirements of section 988(b), except that the Fed-

1 eral share of a project under paragraph (4) shall not  
2 exceed 50 percent.

3 “(d) AUTHORIZATION OF APPROPRIATIONS.—

4 “(1) IN GENERAL.—There are authorized to be  
5 appropriated to the Secretary for carrying out this  
6 section, other than subsection (c)(3) and (4)—

7 “(A) \$100,000,000 for fiscal year 2008;

8 “(B) \$100,000,000 for fiscal year 2009;

9 “(C) \$100,000,000 for fiscal year 2010;

10 and

11 “(D) \$100,000,000 for fiscal year 2011.

12 “(2) SEQUESTRATION.—There are authorized  
13 to be appropriated to the Secretary for carrying out  
14 subsection (c)(3)—

15 “(A) \$140,000,000 for fiscal year 2008;

16 “(B) \$140,000,000 for fiscal year 2009;

17 “(C) \$140,000,000 for fiscal year 2010;

18 and

19 “(D) \$140,000,000 for fiscal year 2011.

20 “(3) CARBON CAPTURE.—There are authorized  
21 to be appropriated to the Secretary for carrying out  
22 subsection (c)(4)—

23 “(A) \$180,000,000 for fiscal year 2009;

24 “(B) \$180,000,000 for fiscal year 2010;

1                   “(C) \$180,000,000 for fiscal year 2011;

2                   and

3                   “(D) \$180,000,000 for fiscal year 2012.”.

4           (b) TABLE OF CONTENTS AMENDMENT.—The item  
5 relating to section 963 in the table of contents for the En-  
6 ergy Policy Act of 2005 is amended to read as follows:

“Sec. 963. Carbon capture and storage research, development, and demonstra-  
tion program.”.

7 **SEC. 4503. REVIEW OF LARGE-SCALE PROGRAMS.**

8           The Secretary of Energy shall enter into an arrange-  
9 ment with the National Academy of Sciences for an inde-  
10 pendent review and oversight, beginning in 2011, of the  
11 programs under section 963(c)(3) and (4) of the Energy  
12 Policy Act of 2005, as added by section 4502 of this sub-  
13 title, to ensure that the benefits of such programs are  
14 maximized. Not later than January 1, 2012, the Secretary  
15 shall transmit to the Congress a report on the results of  
16 such review and oversight.

17 **SEC. 4504. SAFETY RESEARCH.**

18           (a) PROGRAM.—The Assistant Administrator for Re-  
19 search and Development of the Environmental Protection  
20 Agency shall conduct a research program to determine  
21 procedures necessary to protect public health, safety, and  
22 the environment from impacts that may be associated with  
23 capture, injection, and sequestration of greenhouse gases  
24 in subterranean reservoirs.

1 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated for carrying out this sec-  
3 tion \$5,000,000 for each fiscal year.

4 **SEC. 4505. GEOLOGICAL SEQUESTRATION TRAINING AND**  
5 **RESEARCH.**

6 (a) STUDY.—

7 (1) IN GENERAL.—The Secretary of Energy  
8 shall enter into an arrangement with the National  
9 Academy of Sciences to undertake a study that—

10 (A) defines an interdisciplinary program in  
11 geology, engineering, hydrology, environmental  
12 science, and related disciplines that will support  
13 the Nation’s capability to capture and sequester  
14 carbon dioxide from anthropogenic sources;

15 (B) addresses undergraduate and graduate  
16 education, especially to help develop graduate  
17 level programs of research and instruction that  
18 lead to advanced degrees with emphasis on geo-  
19 logical sequestration science;

20 (C) develops guidelines for proposals from  
21 colleges and universities with substantial capa-  
22 bilities in the required disciplines that wish to  
23 implement geological sequestration science pro-  
24 grams that advance the Nation’s capacity to ad-

1 dress carbon management through geological  
2 sequestration science; and

3 (D) outlines a budget and recommenda-  
4 tions for how much funding will be necessary to  
5 establish and carry out the grant program  
6 under subsection (b).

7 (2) REPORT.—Not later than 1 year after the  
8 date of enactment of this Act, the Secretary of En-  
9 ergy shall transmit to the Congress a copy of the re-  
10 sults of the study provided by the National Academy  
11 of Sciences under paragraph (1).

12 (3) AUTHORIZATION OF APPROPRIATIONS.—  
13 There are authorized to be appropriated to the Sec-  
14 retary for carrying out this subsection \$1,000,000  
15 for fiscal year 2008.

16 (b) GRANT PROGRAM.—

17 (1) ESTABLISHMENT.—The Secretary of En-  
18 ergy, through the National Energy Technology Lab-  
19 oratory, shall establish a competitive grant program  
20 through which colleges and universities may apply  
21 for and receive 4-year grants for—

22 (A) salary and startup costs for newly des-  
23 igned faculty positions in an integrated geo-  
24 logical carbon sequestration science program;  
25 and

1 (B) internships for graduate students in  
2 geological sequestration science.

3 (2) RENEWAL.—Grants under this subsection  
4 shall be renewable for up to 2 additional 3-year  
5 terms, based on performance criteria, established by  
6 the National Academy of Sciences study conducted  
7 under subsection (a), that include the number of  
8 graduates of such programs.

9 (3) INTERFACE WITH REGIONAL GEOLOGICAL  
10 CARBON SEQUESTRATION PARTNERSHIPS.—To the  
11 greatest extent possible, geological carbon sequestra-  
12 tion science programs supported under this sub-  
13 section shall interface with the research of the Re-  
14 gional Carbon Sequestration Partnerships operated  
15 by the Department of Energy to provide internships  
16 and practical training in carbon capture and geologi-  
17 cal sequestration.

18 (4) AUTHORIZATION OF APPROPRIATIONS.—  
19 There are authorized to be appropriated to the Sec-  
20 retary for carrying out this subsection such sums as  
21 may be necessary.

22 **SEC. 4506. UNIVERSITY BASED RESEARCH AND DEVELOP-**  
23 **MENT GRANT PROGRAM.**

24 (a) ESTABLISHMENT.—The Secretary of Energy, in  
25 consultation with other appropriate agencies, shall estab-

1 lish a university based research and development program  
2 to study carbon capture and sequestration using the var-  
3 ious types of coal.

4 (b) GRANTS.—Under this section, the Secretary shall  
5 award 5 grants for projects submitted by colleges or uni-  
6 versities to study carbon capture and sequestration in con-  
7 junction with the recovery of oil and other enhanced ele-  
8 mental and mineral recovery. Consideration shall be given  
9 to areas that have regional sources of coal for the study  
10 of carbon capture and sequestration.

11 (c) RURAL AND AGRICULTURAL INSTITUTIONS.—The  
12 Secretary shall designate that at least 2 of these grants  
13 shall be awarded to rural or agricultural based institutions  
14 that offer interdisciplinary programs in the area of envi-  
15 ronmental science to study carbon capture and sequestra-  
16 tion in conjunction with the recovery of oil and other en-  
17 hanced elemental and mineral recovery.

18 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
19 are to be authorized to be appropriated \$10,000,000 to  
20 carry out this section.

## 21 **Subtitle G—Global Change** 22 **Research**

### 23 **SEC. 4601. SHORT TITLE.**

24 This subtitle may be cited as the “Global Change Re-  
25 search and Data Management Act of 2007”.

1           **PART 1—GLOBAL CHANGE RESEARCH**

2   **SEC. 4611. FINDINGS AND PURPOSE.**

3           (a) **FINDINGS.**—The Congress makes the following  
4 findings:

5           (1) Industrial, agricultural, and other human  
6 activities, coupled with an expanding world popu-  
7 lation, are contributing to processes of global change  
8 that are significantly altering the Earth habitat.

9           (2) Such human-induced changes, in conjunc-  
10 tion with natural fluctuations, may lead to signifi-  
11 cant alterations of world climate patterns. Over the  
12 next century, these changes could adversely affect  
13 world agricultural and marine production, coastal  
14 habitability, biological diversity, human health, glob-  
15 al social and political stability, and global economic  
16 activity.

17           (3) Developments in interdisciplinary Earth  
18 sciences, global observing systems, and satellite and  
19 computing technologies make possible significant sci-  
20 entific understanding of global changes and their ef-  
21 fects, and have resulted in the significant expansion  
22 of environmental data and information.

23           (4) Development of effective policies to prevent,  
24 mitigate, and adapt to global change will rely on im-  
25 provement in scientific understanding of global envi-  
26 ronmental processes and on development of informa-

1       tion that is of use to decisionmakers at the local, re-  
2       gional, and national levels.

3           (5) Although the United States Global Change  
4       Research Program has made significant contribu-  
5       tions to understanding Earth's climate and the an-  
6       thropogenic influences on Earth's climate and its  
7       ecosystems, the Program now needs to produce more  
8       information to meet the expressed needs of decision-  
9       makers.

10          (6) Predictions of future climate conditions for  
11       specific regions have considerable uncertainty and  
12       are unlikely to be confirmed in a time period nec-  
13       essary to inform decisions on land, water, and re-  
14       source management. However, improved under-  
15       standing of global change should be used to assist  
16       decisionmakers in the development of policies to en-  
17       sure that ecological, social, and economic systems  
18       are resilient under a variety of plausible climate fu-  
19       tures.

20          (7) In order to most effectively meet the needs  
21       of decisionmakers, both the research agenda of the  
22       United States Global Change Research Program and  
23       its implementation must be informed by continuous  
24       feedback from documented users of information gen-  
25       erated by the Program.

1 (b) PURPOSE.—The purpose of this part is to provide  
2 for the continuation and coordination of a comprehensive  
3 and integrated United States observation, research, and  
4 outreach program which will assist the Nation and the  
5 world to understand, assess, predict, and respond to the  
6 effects of human-induced and natural processes of global  
7 change.

8 **SEC. 4612. DEFINITIONS.**

9 For purposes of this part—

10 (1) the term “global change” means human-in-  
11 duced or natural changes in the global environment  
12 (including alterations in climate, land productivity,  
13 oceans or other water resources, atmospheric chem-  
14 istry, biodiversity, and ecological systems) that may  
15 alter the capacity of the Earth to sustain life;

16 (2) the term “global change research” means  
17 study, monitoring, assessment, prediction, and infor-  
18 mation management activities to describe and under-  
19 stand—

20 (A) the interactive physical, chemical, and  
21 biological processes that regulate the total  
22 Earth system;

23 (B) the unique environment that the Earth  
24 provides for life;

1 (C) changes that are occurring in the  
2 Earth system; and

3 (D) the manner in which such system, en-  
4 vironment, and changes are influenced by  
5 human actions;

6 (3) the term “interagency committee” means  
7 the interagency committee established under section  
8 4613;

9 (4) the term “Plan” means the National Global  
10 Change Research and Assessment Plan developed  
11 under section 4615;

12 (5) the term “Program” means the United  
13 States Global Change Research Program established  
14 under section 4614; and

15 (6) the term “regional climate change” means  
16 the natural or human-induced changes manifested in  
17 the local or regional environment (including alter-  
18 ations in weather patterns, land productivity, water  
19 resources, sea level rise, atmospheric chemistry, bio-  
20 diversity, and ecological systems) that may alter the  
21 capacity of a specific region to support current or  
22 future social and economic activity or natural eco-  
23 systems.

1 **SEC. 4613. INTERAGENCY COOPERATION AND COORDINA-**  
2 **TION.**

3 (a) ESTABLISHMENT.—The President shall establish  
4 or designate an interagency committee to ensure coopera-  
5 tion and coordination of all Federal research activities per-  
6 taining to processes of global change for the purpose of  
7 increasing the overall effectiveness and productivity of  
8 Federal global change research efforts. The interagency  
9 committee shall include representatives of both agencies  
10 conducting global change research and agencies with au-  
11 thority over resources likely to be affected by global  
12 change.

13 (b) FUNCTIONS OF THE INTERAGENCY COM-  
14 MITTEE.—The interagency committee shall—

15 (1) serve as the forum for developing the Plan  
16 and for overseeing its implementation;

17 (2) serve as the forum for developing the vul-  
18 nerability assessment under section 4617;

19 (3) ensure cooperation among Federal agencies  
20 with respect to global change research activities;

21 (4) work with academic, State, industry, and  
22 other groups conducting global change research, to  
23 provide for periodic public and peer review of the  
24 Program;

25 (5) cooperate with the Secretary of State in—

1 (A) providing representation at inter-  
2 national meetings and conferences on global  
3 change research in which the United States  
4 participates; and

5 (B) coordinating the Federal activities of  
6 the United States with programs of other na-  
7 tions and with international global change re-  
8 search activities;

9 (6) work with appropriate Federal, State, re-  
10 gional, and local authorities to ensure that the Pro-  
11 gram is designed to produce information needed to  
12 develop policies to reduce the vulnerability of the  
13 United States and other regions to global change;

14 (7) facilitate ongoing dialog and information ex-  
15 change with regional, State, and local governments  
16 and other user communities; and

17 (8) identify additional decisionmaking groups  
18 that may use information generated through the  
19 Program.

20 **SEC. 4614. UNITED STATES GLOBAL CHANGE RESEARCH**  
21 **PROGRAM.**

22 (a) ESTABLISHMENT.—The President shall establish  
23 an interagency United States Global Change Research  
24 Program to improve understanding of global change, to  
25 respond to the information needs of communities and deci-

1 sionmakers, and to provide periodic assessments of the  
2 vulnerability of the United States and other regions to  
3 global and regional climate change. The Program shall be  
4 implemented in accordance with the Plan.

5 (b) LEAD AGENCY.—The lead agency for the United  
6 States Global Change Research Program shall be the Of-  
7 fice of Science and Technology Policy.

8 (c) INTERAGENCY PROGRAM ACTIVITIES.—The Di-  
9 rector of the Office of Science and Technology Policy, in  
10 consultation with the interagency committee, shall identify  
11 activities included in the Plan that involve participation  
12 by 2 or more agencies in the Program, and that do not  
13 fall within the current fiscal year budget allocations of  
14 those participating agencies, to fulfill the requirements of  
15 this subtitle. The Director of the Office of Science and  
16 Technology Policy shall allocate funds to the agencies to  
17 conduct the identified interagency activities. Such activi-  
18 ties may include—

19 (1) development of scenarios for climate, land-  
20 cover change, population growth, and socioeconomic  
21 development;

22 (2) calibration and testing of alternative re-  
23 gional and global climate models;

24 (3) identification of economic sectors and re-  
25 gional climatic zones; and

1           (4) convening regional workshops to facilitate  
2 information exchange and involvement of regional,  
3 State, and local decisionmakers, non-Federal ex-  
4 perts, and other stakeholder groups in the activities  
5 of the Program.

6           (d) WORKSHOPS.—The Director shall ensure that at  
7 least one workshop is held per year in each region identi-  
8 fied by the Plan under section 4615(b)(11) to facilitate  
9 information exchange and outreach to regional, State, and  
10 local stakeholders as required by this subtitle.

11           (e) AUTHORIZATION OF APPROPRIATIONS.—There  
12 are authorized to be appropriated to the Office of Science  
13 and Technology Policy for carrying out this section  
14 \$10,000,000 for each of the fiscal years 2008 through  
15 2013.

16 **SEC. 4615. NATIONAL GLOBAL CHANGE RESEARCH AND AS-**  
17 **SESSMENT PLAN.**

18           (a) IN GENERAL.—The President shall develop a Na-  
19 tional Global Change Research and Assessment Plan for  
20 implementation of the Program. The Plan shall contain  
21 recommendations for global change research and assess-  
22 ment. The President shall submit an outline for the devel-  
23 opment of the Plan to the Congress within 1 year after  
24 the date of enactment of this Act, and shall submit a com-  
25 pleted Plan to the Congress within 3 years after the date

1 of enactment of this Act. Revised Plans shall be submitted  
2 to the Congress at least once every 5 years thereafter. In  
3 the development of each Plan, the President shall conduct  
4 a formal assessment process under this section to deter-  
5 mine the needs of appropriate Federal, State, regional,  
6 and local authorities and other interested parties regard-  
7 ing the types of information needed by them in developing  
8 policies to reduce society's vulnerability to global change  
9 and shall utilize these assessments, including the reviews  
10 by the National Academy of Sciences and the National  
11 Governors Association under subsections (e) and (f), in  
12 developing the Plan.

13 (b) CONTENTS OF THE PLAN.—The Plan shall—

14 (1) establish, for the 10-year period beginning  
15 in the year the Plan is submitted, the goals and pri-  
16 orities for Federal global change research which  
17 most effectively advance scientific understanding of  
18 global change and provide information of use to  
19 Federal, State, regional, and local authorities in the  
20 development of policies relating to global change;

21 (2) describe specific activities, including efforts  
22 to determine user information needs, research activi-  
23 ties, data collection, database development, and data  
24 analysis requirements, development of regional sce-  
25 narios, assessment of model predictability, assess-

1       ment of climate change impacts, participation in  
2       international research efforts, and information man-  
3       agement, required to achieve such goals and prior-  
4       ities;

5           (3) identify relevant programs and activities of  
6       the Federal agencies that contribute to the Program  
7       directly and indirectly;

8           (4) set forth the role of each Federal agency in  
9       implementing the Plan;

10          (5) consider and utilize, as appropriate, reports  
11       and studies conducted by Federal agencies, the Na-  
12       tional Research Council, or other entities;

13          (6) make recommendations for the coordination  
14       of the global change research and assessment activi-  
15       ties of the United States with such activities of other  
16       nations and international organizations, including—

17           (A) a description of the extent and nature  
18       of international cooperative activities;

19           (B) bilateral and multilateral efforts to  
20       provide worldwide access to scientific data and  
21       information; and

22           (C) improving participation by developing  
23       nations in international global change research  
24       and environmental data collection;

1           (7) detail budget requirements for Federal glob-  
2           al change research and assessment activities to be  
3           conducted under the Plan;

4           (8) catalog the type of information identified by  
5           appropriate Federal, State, regional, and local deci-  
6           sionmakers needed to develop policies to reduce soci-  
7           ety's vulnerability to global change and indicate how  
8           the planned research will meet these decisionmakers'  
9           information needs;

10          (9) identify the observing systems currently em-  
11          ployed in collecting data relevant to global and re-  
12          gional climate change research and prioritize addi-  
13          tional observation systems that may be needed to en-  
14          sure adequate data collection and monitoring of  
15          global change;

16          (10) describe specific activities designed to fa-  
17          cilitate outreach and data and information exchange  
18          with regional, State, and local governments and  
19          other user communities; and

20          (11) identify and describe regions of the United  
21          States that are likely to experience similar impacts  
22          of global change or are likely to share similar  
23          vulnerabilities to global change.

24          (c) RESEARCH ELEMENTS.—The Plan shall include  
25          at a minimum the following research elements:

1           (1) Global measurements, establishing world-  
2 wide to regional scale observations prioritized to un-  
3 derstand global change and to meet the information  
4 needs of decisionmakers on all relevant spatial and  
5 time scales.

6           (2) Information on economic, demographic, and  
7 technological trends that contribute to changes in  
8 the Earth system and that influence society's vulner-  
9 ability to global and regional climate change.

10          (3) Development of indicators and baseline  
11 databases to document global change, including  
12 changes in species distribution and behavior, extent  
13 of glaciations, and changes in sea level.

14          (4) Studies of historical changes in the Earth  
15 system, using evidence from the geological and fossil  
16 record.

17          (5) Assessments of predictability using quan-  
18 titative models of the Earth system to simulate glob-  
19 al and regional environmental processes and trends.

20          (6) Focused research initiatives to understand  
21 the nature of and interaction among physical, chem-  
22 ical, biological, land use, and social processes related  
23 to global and regional climate change.

1           (7) Focused research initiatives to determine  
2           and then meet the information needs of appropriate  
3           Federal, State, and regional decisionmakers.

4           (d) INFORMATION MANAGEMENT.—The Plan shall  
5           incorporate, to the extent practicable, the recommenda-  
6           tions relating to data acquisition, management, integra-  
7           tion, and archiving made by the interagency climate and  
8           other global change data management working group es-  
9           tablished under section 4633.

10          (e) NATIONAL ACADEMY OF SCIENCES EVALUA-  
11          TION.—The President shall enter into an agreement with  
12          the National Academy of Sciences under which the Acad-  
13          emy shall—

14                (1) evaluate the scientific content of the Plan;  
15                and

16                (2) recommend priorities for future global and  
17                regional climate change research and assessment.

18          (f) NATIONAL GOVERNORS ASSOCIATION EVALUA-  
19          TION.—The President shall enter into an agreement with  
20          the National Governors Association Center for Best Prac-  
21          tices under which that Center shall—

22                (1) evaluate the utility to State, local, and re-  
23                gional decisionmakers of each Plan and of the antici-  
24                pated and actual information outputs of the Pro-

1       gram for development of State, local, and regional  
2       policies to reduce vulnerability to global change; and

3               (2) recommend priorities for future global and  
4       regional climate change research and assessment.

5       (g) PUBLIC PARTICIPATION.—In developing the  
6 Plan, the President shall consult with representatives of  
7 academic, State, industry, and environmental groups. Not  
8 later than 90 days before the President submits the Plan,  
9 or any revision thereof, to the Congress, a summary of  
10 the proposed Plan shall be published in the Federal Reg-  
11 ister for a public comment period of not less than 60 days.

12 **SEC. 4616. BUDGET COORDINATION.**

13       (a) IN GENERAL.—The President shall provide gen-  
14 eral guidance to each Federal agency participating in the  
15 Program with respect to the preparation of requests for  
16 appropriations for activities related to the Program.

17       (b) CONSIDERATION IN PRESIDENT’S BUDGET.—The  
18 President shall submit, at the time of his annual budget  
19 request to Congress, a description of those items in each  
20 agency’s annual budget which are elements of the Pro-  
21 gram.

22 **SEC. 4617. VULNERABILITY ASSESSMENT.**

23       (a) REQUIREMENT.—Within 1 year after the date of  
24 enactment of this Act, and at least once every 5 years

1 thereafter, the President shall submit to the Congress an  
2 assessment which—

3           (1) integrates, evaluates, and interprets the  
4 findings of the Program and discusses the scientific  
5 uncertainties associated with such findings;

6           (2) analyzes current trends in global change,  
7 both human-induced and natural, and projects major  
8 trends for the subsequent 25 to 100 years;

9           (3) based on indicators and baselines developed  
10 under section 4615(c)(3), as well as other measure-  
11 ments, analyzes changes to the natural environment,  
12 land and water resources, and biological diversity  
13 in—

14                   (A) major geographic regions of the United  
15 States; and

16                   (B) other continents;

17           (4) analyzes the effects of global change, includ-  
18 ing the changes described in paragraph (3), on food  
19 and fiber production, energy production and use,  
20 transportation, human health and welfare, water  
21 availability and coastal infrastructure, and human  
22 social and economic systems, including providing in-  
23 formation about the differential impacts on specific  
24 geographic regions within the United States, on peo-  
25 ple of different income levels within those regions,

1 and for rural and urban areas within those regions;  
2 and

3 (5) summarizes the vulnerability of different ge-  
4 ographic regions of the world to global change and  
5 analyzes the implications of global change for the  
6 United States, including international assistance,  
7 population displacement, food and resource avail-  
8 ability, and national security.

9 (b) USE OF RELATED REPORTS.—To the extent ap-  
10 propriate, the assessment produced pursuant to this sec-  
11 tion may coordinate with, consider, incorporate, or other-  
12 wise make use of related reports, assessments, or informa-  
13 tion produced by the United States Global Change Re-  
14 search Program, regional, State, and local entities, and  
15 international organizations, including the World Meteor-  
16 ological Organization and the Intergovernmental Panel on  
17 Climate Change.

18 **SEC. 4618. POLICY ASSESSMENT.**

19 Not later than 1 year after the date of enactment  
20 of this Act, and at least once every 4 years thereafter,  
21 the President shall enter into a joint agreement with the  
22 National Academy of Public Administration and the Na-  
23 tional Academy of Sciences under which the Academies  
24 shall—

1           (1) document current policy options being im-  
2           plemented by Federal, State, and local governments  
3           to mitigate or adapt to the effects of global and re-  
4           gional climate change;

5           (2) evaluate the realized and anticipated effec-  
6           tiveness of those current policy options in meeting  
7           mitigation and adaptation goals;

8           (3) identify and evaluate a range of additional  
9           policy options and infrastructure for mitigating or  
10          adapting to the effects of global and regional climate  
11          change;

12          (4) analyze the adoption rates of policies and  
13          technologies available to reduce the vulnerability of  
14          society to global change with an evaluation of the  
15          market and policy obstacles to their adoption in the  
16          United States; and

17          (5) evaluate the distribution of economic costs  
18          and benefits of these policy options across different  
19          United States economic sectors.

20 **SEC. 4619. ANNUAL REPORT.**

21          Each year at the time of submission to the Congress  
22          of the President's budget request, the President shall sub-  
23          mit to the Congress a report on the activities conducted  
24          pursuant to this part, including—

1           (1) a description of the activities of the Pro-  
2           gram during the past fiscal year;

3           (2) a description of the activities planned in the  
4           next fiscal year toward achieving the goals of the  
5           Plan; and

6           (3) a description of the groups or categories of  
7           State, local, and regional decisionmakers identified  
8           as potential users of the information generated  
9           through the Program and a description of the activi-  
10          ties used to facilitate consultations with and out-  
11          reach to these groups, coordinated through the work  
12          of the interagency committee.

13 **SEC. 4620. RELATION TO OTHER AUTHORITIES.**

14         The President shall—

15           (1) ensure that relevant research, assessment,  
16           and outreach activities of the National Climate Pro-  
17           gram, established by the National Climate Program  
18           Act (15 U.S.C. 2901 et seq.), are considered in de-  
19           veloping national global and regional climate change  
20           research and assessment efforts; and

21           (2) facilitate ongoing dialog and information ex-  
22           change with regional, State, and local governments  
23           and other user communities through programs au-  
24           thorized in the National Climate Program Act (15  
25           U.S.C. 2901 et seq.).

1 **SEC. 4621. REPEAL.**

2 The Global Change Research Act of 1990 (15 U.S.C.  
3 2921 et seq.) is repealed.

4 **SEC. 4622. GLOBAL CHANGE RESEARCH INFORMATION.**

5 The President shall establish or designate a Global  
6 Change Research Information Exchange to make scientific  
7 research and other information produced through or uti-  
8 lized by the Program which would be useful in preventing,  
9 mitigating, or adapting to the effects of global change ac-  
10 cessible through electronic means.

11 **SEC. 4623. ICE SHEET STUDY AND REPORT.**

12 (a) STUDY.—

13 (1) REQUIREMENT.—The Director of the Na-  
14 tional Science Foundation and the Administrator of  
15 National Oceanic and Atmospheric Administration  
16 shall enter into an arrangement with the National  
17 Academy of Sciences to complete a study of the cur-  
18 rent status of ice sheet melt, as caused by climate  
19 change, with implications for global sea level rise.

20 (2) CONTENTS.—The study shall take into con-  
21 sideration—

22 (A) the past research completed related to  
23 ice sheet melt as reviewed by Working Group I  
24 of the Intergovernmental Panel on Climate  
25 Change;

1 (B) additional research completed since the  
2 fall of 2005 that was not included in the Work-  
3 ing Group I report due to time constraints; and

4 (C) the need for an accurate assessment of  
5 changes in ice sheet spreading, changes in ice  
6 sheet flow, self-lubrication, the corresponding  
7 effect on ice sheets, and current modeling capa-  
8 bilities.

9 (3) REPORT.—Not later than 18 months after  
10 the date of enactment of this Act, the National  
11 Academy of Sciences shall transmit to the Com-  
12 mittee on Science and Technology of the House of  
13 Representatives and the Committee on Commerce,  
14 Science, and Transportation of the Senate a report  
15 on the key findings of the study conducted under  
16 subsection (a), along with recommendations for addi-  
17 tional research related to ice sheet melt and cor-  
18 responding sea level rise.

19 **SEC. 4624. HURRICANE FREQUENCY AND INTENSITY STUDY**  
20 **AND REPORT.**

21 (a) STUDY.—

22 (1) REQUIREMENT.—The Administrator of the  
23 National Oceanic and Atmospheric Administration  
24 and the Director of the National Science Foundation  
25 shall enter into an arrangement with the National

1 Academy of Sciences to complete a study of the cur-  
2 rent state of the science on the potential impacts of  
3 climate change on patterns of hurricane and typhoon  
4 development, including storm intensity, track, and  
5 frequency, and the implications for hurricane-prone  
6 and typhoon-prone coastal regions.

7 (2) CONTENTS.—The study shall take into con-  
8 sideration—

9 (A) the past research completed related to  
10 hurricane and typhoon development, track, and  
11 intensity as reviewed by Working Groups I and  
12 II of the Intergovernmental Panel on Climate  
13 Change;

14 (B) additional research completed since the  
15 fall of 2005 that was not included in the Work-  
16 ing Group I and II reports due to time con-  
17 straints;

18 (C) the need for accurate assessment of  
19 potential changes in hurricane and typhoon in-  
20 tensity, track, and frequency and of the current  
21 modeling and forecasting capabilities and the  
22 need for improvements in forecasting of these  
23 parameters; and

24 (D) the need for additional research and  
25 monitoring to improve forecasting of hurricanes

1           and typhoons and to understand the relation-  
2           ship between climate change and hurricane and  
3           typhoon development.

4           (3) REPORT.—Not later than 18 months after  
5           the date of enactment of this Act, the National  
6           Academy of Sciences shall transmit to the Com-  
7           mittee on Science and Technology of the House of  
8           Representatives and the Committee on Commerce,  
9           Science, and Transportation of the Senate a report  
10          on the key findings of the study conducted under  
11          subsection (a).

## 12   **PART 2—CLIMATE AND OTHER GLOBAL CHANGE**

### 13                           **DATA MANAGEMENT**

#### 14   **SEC. 4631. FINDINGS AND PURPOSES.**

15          (a) FINDINGS.—The Congress makes the following  
16          findings:

17               (1) Federal agencies have a primary mission to  
18               manage and archive climate and other global change  
19               data obtained through their research, development,  
20               or operational activities.

21               (2) Maintenance of climate and global change  
22               data records is essential to present and future stud-  
23               ies of the Earth’s atmosphere, biogeochemical cycles,  
24               and climate.

1           (3) Federal capabilities for the management  
2           and archiving of these data have not kept pace with  
3           advances in satellite and other observational tech-  
4           nologies that have vastly expanded the type and  
5           amount of information that can be collected.

6           (4) Proposals and plans for expansion of global  
7           observing networks should include plans for the  
8           management of data to be collected and budgets re-  
9           flecting the cost of support for management and  
10          archiving of data.

11          (b) PURPOSES.—The purposes of this part are to es-  
12         tablish climate and other global change data management  
13         and archiving as Federal agency missions, and to establish  
14         Federal policies for managing and archiving climate and  
15         other global change data.

16         **SEC. 4632. DEFINITIONS.**

17         For purposes of this part—

18           (1) the term “metadata” means information de-  
19           scribing the content, quality, condition, and other  
20           characteristics of climate and other global change  
21           data, compiled, to the maximum extent possible, con-  
22           sistent with the requirements of the “Content Stand-  
23           ard for Digital Geospatial Metadata” (FGDC–STD–  
24           001–1998) issued by the Federal Geographic Data

1 Committee, or any successor standard approved by  
2 the working group; and

3 (2) the term “working group” means the inter-  
4 agency climate and other global change data man-  
5 agement working group established under section  
6 4633.

7 **SEC. 4633. INTERAGENCY CLIMATE AND OTHER GLOBAL**  
8 **CHANGE DATA MANAGEMENT WORKING**  
9 **GROUP.**

10 (a) ESTABLISHMENT.—The President shall establish  
11 or designate an interagency climate and other global  
12 change data management working group to make rec-  
13 ommendations for coordinating Federal climate and other  
14 global change data management and archiving activities.

15 (b) MEMBERSHIP.—The working group shall include  
16 the Administrator of the National Aeronautics and Space  
17 Administration, the Administrator of the National Oceanic  
18 and Atmospheric Administration, the Secretary of Energy,  
19 the Secretary of Defense, the Director of the National  
20 Science Foundation, the Director of the United States Ge-  
21 ological Survey, the Archivist of the United States, the  
22 Administrator of the Environmental Protection Agency,  
23 the Secretary of the Smithsonian Institution, or their des-  
24 ignees, and representatives of any other Federal agencies  
25 the President considers appropriate.

1           (c) REPORTS.—Not later than 1 year after the date  
2 of enactment of this Act, the working group shall transmit  
3 a report to the Congress containing the elements described  
4 in subsection (d). Not later than 4 years after the initial  
5 report under this subsection, and at least once every 4  
6 years thereafter, the working group shall transmit reports  
7 updating the previous report. In preparing reports under  
8 this subsection, the working group shall consult with ex-  
9 pected users of the data collected and archived by the Pro-  
10 gram.

11           (d) CONTENTS.—The reports and updates required  
12 under subsection (c) shall—

13                 (1) include recommendations for the establish-  
14 ment, maintenance, and accessibility of a catalog  
15 identifying all available climate and other global  
16 change data sets;

17                 (2) identify climate and other global change  
18 data collections in danger of being lost and rec-  
19 ommend actions to prevent such loss;

20                 (3) identify gaps in climate and other global  
21 change data and recommend actions to fill those  
22 gaps;

23                 (4) identify effective and compatible procedures  
24 for climate and other global change data collection,  
25 management, and retention and make recommenda-

1 tions for ensuring their use by Federal agencies and  
2 other appropriate entities;

3 (5) develop and propose a coordinated strategy  
4 for funding and allocating responsibilities among  
5 Federal agencies for climate and other global change  
6 data collection, management, and retention;

7 (6) make recommendations for ensuring that  
8 particular attention is paid to the collection, man-  
9 agement, and archiving of metadata;

10 (7) make recommendations for ensuring a uni-  
11 fied and coordinated Federal capital investment  
12 strategy with respect to climate and other global  
13 change data collection, management, and archiving;

14 (8) evaluate the data record from each observ-  
15 ing system and make recommendations to ensure  
16 that delivered data are free from time-dependent bi-  
17 ases and random errors before they are transferred  
18 to long-term archives; and

19 (9) evaluate optimal design of observation sys-  
20 tem components to ensure a cost-effective, adequate  
21 set of observations detecting and tracking global  
22 change.

1                   **TITLE V—AGRICULTURE**  
 2                                   **ENERGY**

3 **SEC. 5001. TABLE OF CONTENTS.**

4           Title IX of the Farm Security and Rural Investment  
 5 Act of 2002 (7 U.S.C. 8101 et seq.) is amended by insert-  
 6 ing before section 9001 the following new section:

7 **“SEC. 9000. TABLE OF CONTENTS.**

8           “The table of contents of this title is as follows:

“TITLE IX—ENERGY

“Sec. 9000. Table of contents.

“Sec. 9001. Definitions.

“Sec. 9002. Federal procurement of biobased products.

“Sec. 9003. Biorefinery development grants; loan guarantees for biorefineries  
and biofuel production plants.

“Sec. 9004. Biodiesel fuel education program.

“Sec. 9005. Energy audit and renewable energy development program.

“Sec. 9006. Rural energy for America program.

“Sec. 9007. Hydrogen and fuel cell technologies.

“Sec. 9008. Biomass Research and Development Act of 2000.

“Sec. 9009. Cooperative research and extension projects.

“Sec. 9010. Continuation of bioenergy program.

“Sec. 9011. Research, extension, and educational programs on biobased energy  
technologies and products.

“Sec. 9012. Energy Council of the Department of Agriculture.

“Sec. 9013. Forest bioenergy research program.”.

9 **SEC. 5002. FEDERAL PROCUREMENT OF BIOBASED PROD-**  
 10 **UCTS.**

11           Section 9002 of the Farm Security and Rural Invest-  
 12 ment Act of 2002 (7 U.S.C. 8102) is amended—

13           (1) in subsection (c)(1), by inserting “, com-  
 14 posed of at least five percent of intermediate ingredi-  
 15 ents and feedstocks (such as biopolymers, methyl  
 16 soyate, and soy polyols) as designated by the Sec-

1       retary,” after “highest percentage of biobased prod-  
2       ucts practicable”;

3               (2) by striking subsection (h)(2) and inserting  
4       the following:

5               “(2) ELIGIBILITY CRITERIA.—

6                       “(A) IN GENERAL.—Not later than 90  
7       days after the date of the enactment of the New  
8       Direction for Energy Independence, National  
9       Security, and Consumer Protection Act, the  
10      Secretary, in consultation with other Federal  
11      departments and agencies and with non-govern-  
12      mental groups with an interest in biobased  
13      products, including small and large producers  
14      of biobased materials and products, industry,  
15      trade organizations, academia, consumer orga-  
16      nizations, and environmental organizations,  
17      shall issue criteria for determining which prod-  
18      ucts may qualify to receive the label under  
19      paragraph (1). The criteria shall encourage the  
20      purchase of products with the maximum  
21      biobased content, and should, to the maximum  
22      extent possible, be consistent with the guide-  
23      lines issued under subsection (e).

24                      “(B) INTERMEDIATE INGREDIENTS.—The  
25      criteria issued under subparagraph (A) shall

1 provide that the Secretary may designate inter-  
 2 mediate ingredients and feedstocks (such as  
 3 biopolymers, methyl soyate, and soy polyols) as  
 4 biobased for the purposes of the voluntary pro-  
 5 gram established under this subsection.”; and  
 6 (3) by striking subsection (k)(2)(A) and insert-  
 7 ing the following:

8 “(A) IN GENERAL.—Of the funds of the  
 9 Commodity Credit Corporation, the Secretary  
 10 shall use \$2,000,000 for each of fiscal years  
 11 2008 through 2012 for bio-product testing and  
 12 support ongoing operations of the Designation  
 13 Program, the Voluntary Labeling Program,  
 14 procurement program models, procurement re-  
 15 search, promotion, education, and awareness of  
 16 the BioPreferred Program.”.

17 **SEC. 5003. LOAN GUARANTEES FOR BIOREFINERIES AND**  
 18 **BIOFUEL PRODUCTION PLANTS.**

19 Section 9003 of the Farm Security and Rural Invest-  
 20 ment Act of 2002 (7 U.S.C. 8103) is amended—

21 (1) in the section heading, by inserting “;  
 22 **LOAN GUARANTEES FOR BIOREFINERIES AND**  
 23 **BIOFUEL PRODUCTION PLANTS”** after  
 24 **“GRANTS”**;

1           (2) in subsection (b)(2)(A), by striking “and”  
2 the 1st place it appears and inserting “or”;

3           (3) in subsection (c), by redesignating sub-  
4 section (h) as subsection (j) and subsections (d)  
5 through (g) as subsections (e) through (h), respec-  
6 tively, and inserting after subsection (c) the fol-  
7 lowing:

8           “(d) LOAN GUARANTEES.—

9           “(1) IN GENERAL.—The Secretary shall make  
10 loan guarantees to eligible entities to assist in pay-  
11 ing the cost of development and construction of bio-  
12 refineries and biofuel production plants (including  
13 retrofitting) to carry out projects to demonstrate the  
14 commercial viability of 1 or more processes for con-  
15 verting biomass to fuels or chemicals.

16           “(2) LIMITATIONS.—

17           “(A) MAXIMUM PERCENTAGE OF LOAN  
18 GUARANTEED.—A loan guarantee under para-  
19 graph (1) shall be for not more than 90 percent  
20 of the principal and interest due on the loan.

21           “(B) TOTAL AMOUNTS GUARANTEED.—  
22 The total amount of principal and interest  
23 guaranteed under paragraph (1) shall not ex-  
24 ceed—

1                   “(i) \$600,000,000, in the case of  
2                   loans valued at not more than  
3                   \$100,000,000; or

4                   “(ii) \$1,000,000,000, in the case of  
5                   loans valued at more than \$100,000,000  
6                   but not more than \$250,000,000.

7                   “(C) MAXIMUM TERM OF LOAN GUARAN-  
8                   TEED.—The Secretary shall determine the max-  
9                   imum term of a loan guarantee provided under  
10                   paragraph (1).”;

11                   (4) in subsection (f) (as so redesignated)—

12                   (A) in paragraph (1), by inserting “and  
13                   loan guarantees under subsection (d)” after  
14                   “(e)”;

15                   (B) in paragraph (2)(A), by inserting “or  
16                   loan guarantees under subsection (d)” after  
17                   “(e)”;

18                   (C) in paragraph (2)(B)—

19                   (i) by striking “and” at the end of  
20                   clause (viii);

21                   (ii) by striking the period at the end  
22                   of clause (ix) and inserting “; and”; and

23                   (iii) by adding at the end the fol-  
24                   lowing:

1                   “(x) The level of local ownership.”;

2                   and

3                   (D) by adding at the end the following:

4                   “(3) PRIORITY IN AWARDING LOAN GUARAN-  
5                   TEES.—In selecting projects to receive loan guaran-  
6                   tees under subsection (d), the Secretary shall give  
7                   priority to projects based on the criteria set forth in  
8                   paragraph (2)(B) of this subsection.”;

9                   (5) by inserting after subsection (h) the fol-  
10                  lowing new subsection:

11                  “(i) CONDITION OF PROVISION OF ASSISTANCE.—As  
12                  a condition of receiving a grant or loan guarantee under  
13                  this section, the eligible entity shall ensure that all labor-  
14                  ers and mechanics employed by contractors or subcontrac-  
15                  tors in the performance of construction work financed in  
16                  whole or in part with the grant or loan guarantee, as the  
17                  case may be, shall be paid wages at rates not less than  
18                  those prevailing on similar construction in the locality, as  
19                  determined by the Secretary of Labor in accordance with  
20                  section 3141 through 3144, 3146, and 3147 of title 40,  
21                  United States Code. The Secretary of Labor shall have,  
22                  with respect to such labor standards, the authority and  
23                  functions set forth in Reorganization Plan Numbered 14  
24                  of 1950 (15 F. R. 3176; 64 Stat. 1267) and section 3145  
25                  of such title.”;

1           (6) in subsection (j) (as so redesignated), by  
2           striking “2007” and inserting “2012”; and

3           (7) by adding at the end the following new sub-  
4           section:

5           “(k) ADDITIONAL FUNDING FOR LOAN GUARAN-  
6           TEES.—Of the funds of the Commodity Credit Corpora-

7           tion, the Secretary shall use to carry out this section—

8           “(1) \$50,000,000 for fiscal year 2008;

9           “(2) \$65,000,000 for fiscal year 2009;

10           “(3) \$75,000,000 for fiscal year 2010;

11           “(4) \$150,000,000 for fiscal year 2011; and

12           “(5) \$300,000,000 for fiscal year 2012.”.

13   **SEC. 5004. BIODIESEL FUEL EDUCATION PROGRAM.**

14           Section 9004(d) of the Farm Security and Rural In-  
15           vestment Act of 2002 (7 U.S.C. 8104(d)) is amended to  
16           read as follows:

17           “(d) FUNDING.—Of the funds of the Commodity  
18           Credit Corporation, the Secretary of Agriculture shall  
19           make available to carry out this section \$2,000,000 for  
20           each of fiscal years 2008 through 2012.”.

21   **SEC. 5005. ENERGY AUDIT AND RENEWABLE ENERGY DE-**  
22                                   **VELOPMENT PROGRAM.**

23           Section 9005(i) of the Farm Security and Rural In-  
24           vestment Act of 2002 (7 U.S.C. 8105) is amended by  
25           striking “2007” and inserting “2012”.

1 **SEC. 5006. RENEWABLE ENERGY SYSTEMS AND ENERGY EF-**  
2 **FICIENCY IMPROVEMENTS.**

3 Section 9006 of the Farm Security and Rural Invest-  
4 ment Act of 2002 (7 U.S.C. 8106) is amended—

5 (1) by striking the section heading and insert-  
6 ing the following:

7 **“SEC. 9006. RURAL ENERGY FOR AMERICA PROGRAM.”;**

8 (2) in subsection (a)—

9 (A) in the matter preceding paragraph (1),  
10 by inserting “, other agricultural producer”  
11 after “rancher”;

12 (B) in paragraph (1), by striking “and” at  
13 the end;

14 (C) in paragraph (2), by striking the pe-  
15 riod and inserting “; and”; and

16 (D) by adding at the end the following new  
17 paragraph:

18 “(3) produce and sell electricity generated by  
19 new renewable energy systems.”;

20 (3) in subsection (b), by inserting “, other agri-  
21 cultural producer” after “rancher”;

22 (4) in subsection (c)—

23 (A) in paragraph (1)—

24 (i) in subparagraph (B), by striking  
25 “50 percent” and inserting “75 percent”;  
26 and

1                   (ii) by redesignating subparagraph  
2                   (B) as subparagraph (C) and inserting  
3                   after subparagraph (A) the following:

4                   “(B) LOAN GUARANTEES.—

5                   “ (i)       MAXIMUM       AMOUNT.—The  
6                   amount of a loan guaranteed under this  
7                   section shall not exceed \$25,000,000.

8                   “ (ii) MAXIMUM PERCENTAGE.—A loan  
9                   guaranteed under this section shall not ex-  
10                  ceed 75 percent of the cost of the activity  
11                  funded under subsection (a).”; and

12                  (B) by adding at the end the following new  
13                  paragraph:

14                  “(3) PRIORITIZATION.—The Secretary shall  
15                  give the greatest priority for grants under subsection  
16                  (a) to activities for which the least percentage of the  
17                  total cost of such activities is requested by the farm-  
18                  er, rancher, other agricultural producer, or rural  
19                  small business.”.

20                  (5) by redesignating subsection (e) as sub-  
21                  section (g) and striking subsection (f);

22                  (6) by inserting after subsection (d) the fol-  
23                  lowing new subsections:

24                  “(e) FEASIBILITY STUDIES.—

1           “(1) IN GENERAL.—The Secretary may provide  
2 assistance to a farmer, rancher, other agricultural  
3 producer, or rural small business to conduct a feasi-  
4 bility study of a project for which assistance may be  
5 provided under this section.

6           “(2) LIMITATION.—The Secretary shall use not  
7 more than 10 percent of the funds made available to  
8 carry out this section to provide assistance described  
9 in paragraph (1).

10           “(3) CRITERIA.—The Secretary shall issue reg-  
11 ulations establishing criteria for the receipt of assist-  
12 ance under this subsection.

13           “(4) AVOIDANCE OF DUPLICATIVE ASSIST-  
14 ANCE.—An farmer, rancher, other agricultural pro-  
15 ducer, or rural small business that receives assist-  
16 ance to carry out a feasibility study for a project  
17 under this subsection shall not be eligible for assist-  
18 ance to carry out a feasibility study for the project  
19 under any other provision of law.

20           “(f) SMALL ACTIVITIES.—

21           “(1) LIMITATION ON USE OF FUNDS.—The Sec-  
22 retary shall use not less than 15 percent of the  
23 funds made available under subsection (h) to provide  
24 grants for activities that have a cost of \$50,000 or  
25 less.

1           “(2) EXCEPTION.—Beginning on the first day  
2 of the third quarter of a fiscal year, the limitation  
3 on the use of funds under paragraph (1) shall not  
4 apply to funds made available under subsection (h)  
5 for such fiscal year.”; and

6           (7) by adding at the end the following new sub-  
7 section:

8           “(h) FUNDING.—Of the funds of the Commodity  
9 Credit Corporation, the Secretary of Agriculture shall  
10 make available to carry out this section—

11           “(1) \$40,000,000 for fiscal year 2008;

12           “(2) \$60,000,000 for fiscal year 2009;

13           “(3) \$75,000,000 for fiscal year 2010;

14           “(4) \$100,000,000 for fiscal year 2011; and

15           “(5) \$150,000,000 for fiscal year 2012.”.

16 **SEC. 5007. BIOMASS RESEARCH AND DEVELOPMENT ACT**  
17 **OF 2000.**

18           (a) RESTATEMENT OF ACT.—Section 9008 of the  
19 Farm Security and Rural Investment Act of 2002 (116  
20 Stat. 486) is amended to read as follows:

21 **“SEC. 9008. BIOMASS RESEARCH AND DEVELOPMENT ACT**  
22 **OF 2000.**

23           “(a) SHORT TITLE.—This section may be cited as the  
24 ‘Biomass Research and Development Act of 2000’.

25           “(b) FINDINGS.—Congress finds that—

1           “(1) conversion of biomass into biobased indus-  
2           trial products offers outstanding potential for benefit  
3           to the national interest through—

4                   “(A) improved strategic security and bal-  
5           ance of payments;

6                   “(B) healthier rural economies;

7                   “(C) improved environmental quality;

8                   “(D) near-zero net greenhouse gas emis-  
9           sions;

10                  “(E) technology export; and

11                  “(F) sustainable resource supply;

12           “(2) the key technical challenges to be overcome  
13           in order for biobased industrial products to be cost-  
14           competitive are finding new technology and reducing  
15           the cost of technology for converting biomass into  
16           desired biobased industrial products;

17           “(3) biobased fuels have the clear potential to  
18           be sustainable, low cost, and high performance fuels  
19           that are compatible with both current and future  
20           transportation systems and provide near-zero net  
21           greenhouse gas emissions;

22           “(4) biobased chemicals have the clear potential  
23           for environmentally benign product life cycles;

24           “(5) biobased power can—

25                   “(A) provide environmental benefits;

1                   “(B) promote rural economic development;

2                   and

3                   “(C) diversify energy resource options;

4                   “(6) many biomass feedstocks suitable for in-  
5                   dustrial processing show the clear potential for sus-  
6                   tainable production, in some cases resulting in im-  
7                   proved soil fertility and carbon sequestration;

8                   “(7)(A) grain processing mills are biorefineries  
9                   that produce a diversity of useful food, chemical,  
10                  feed, and fuel products; and

11                  “(B) technologies that result in further diver-  
12                  sification of the range of value-added biobased in-  
13                  dustrial products can meet a key need for the grain  
14                  processing industry;

15                  “(8)(A) cellulosic feedstocks are attractive be-  
16                  cause of their low cost and widespread availability;  
17                  and

18                  “(B) research resulting in cost-effective tech-  
19                  nology to overcome the recalcitrance of cellulosic bio-  
20                  mass would allow biorefineries to produce fuels and  
21                  bulk chemicals on a very large scale, with a commen-  
22                  surately large realization of the benefit described in  
23                  paragraph (1);

24                  “(9) research into the fundamentals to under-  
25                  stand important mechanisms of biomass conversion

1 can be expected to accelerate the application and ad-  
2 vancement of biomass processing technology by—

3 “(A) increasing the confidence and speed  
4 with which new technologies can be scaled up;  
5 and

6 “(B) giving rise to processing innovations  
7 based on new knowledge;

8 “(10) the added utility of biobased industrial  
9 products developed through improvements in proc-  
10 essing technology would encourage the design of  
11 feedstocks that would meet future needs more effec-  
12 tively;

13 “(11) the creation of value-added biobased in-  
14 dustrial products would create new jobs in construc-  
15 tion, manufacturing, and distribution, as well as new  
16 higher-valued exports of products and technology;

17 “(12)(A) because of the relatively short-term  
18 time horizon characteristic of private sector invest-  
19 ments, and because many benefits of biomass proc-  
20 essing are in the national interest, it is appropriate  
21 for the Federal Government to provide  
22 precommercial investment in fundamental research  
23 and research-driven innovation in the biomass proc-  
24 essing area; and

1           “(B) such an investment would provide a valu-  
2           able complement to ongoing and past governmental  
3           support in the biomass processing area; and

4           “(13) several prominent studies, including stud-  
5           ies by the President’s Committee of Advisors on  
6           Science and Technology and the National Research  
7           Council—

8           “(A) support the potential for large re-  
9           search-driven advances in technologies for pro-  
10          duction of biobased industrial products as well  
11          as associated benefits; and

12          “(B) document the need for a focused, in-  
13          tegrated, and innovation-driven research effort  
14          to provide the appropriate progress in a timely  
15          manner.

16          “(c) DEFINITIONS.—In this section:

17          “(1) ADVISORY COMMITTEE.—The term ‘Advi-  
18          sory Committee’ means the Biomass Research and  
19          Development Technical Advisory Committee estab-  
20          lished by this section.

21          “(2) BIOBASED FUEL.—The term ‘biobased  
22          fuel’ means any transportation or heating fuel pro-  
23          duced from biomass.

24          “(3) BIOBASED PRODUCT.—The term ‘biobased  
25          product’ means an industrial product (including

1 chemicals, materials, and polymers) produced from  
2 biomass, or a commercial or industrial product (in-  
3 cluding animal feed and electric power) derived in  
4 connection with the conversion of biomass to fuel.

5 “(4) BIOMASS.—The term ‘biomass’ means any  
6 organic matter that is available on a renewable or  
7 recurring basis, including agricultural crops and  
8 trees, wood and wood wastes and residues, plants  
9 (including aquatic plants), grasses, residues, fibers,  
10 and animal wastes, municipal wastes, and other  
11 waste materials.

12 “(5) BOARD.—The term ‘Board’ means the  
13 Biomass Research and Development Board estab-  
14 lished by this section.

15 “(6) DEMONSTRATION.—The term ‘demonstra-  
16 tion’ means demonstration of technology in a pilot  
17 plant or semi-works scale facility.

18 “(7) INITIATIVE.—The term ‘Initiative’ means  
19 the Biomass Research and Development Initiative  
20 established under this section.

21 “(8) INSTITUTION OF HIGHER EDUCATION.—  
22 The term ‘institution of higher education’ has the  
23 meaning given the term in section 102(a) of the  
24 Higher Education Act of 1965 (20 U.S.C. 1002(a)).

1           “(9) NATIONAL LABORATORY.—The term ‘Na-  
2           tional Laboratory’ has the meaning given that term  
3           in section 2 of the Energy Policy Act of 2005.

4           “(10) POINT OF CONTACT.—The term ‘point of  
5           contact’ means a point of contact designated under  
6           this section.

7           “(d) COOPERATION AND COORDINATION IN BIOMASS  
8           RESEARCH AND DEVELOPMENT.—

9           “(1) IN GENERAL.—The Secretary of Agri-  
10          culture and the Secretary of Energy shall cooperate  
11          with respect to, and coordinate, policies and proce-  
12          dures that promote research and development lead-  
13          ing to the production of biobased fuels and biobased  
14          products.

15          “(2) POINTS OF CONTACT.—

16                 “(A) IN GENERAL.—To coordinate re-  
17          search and development programs and activities  
18          relating to biobased fuels and biobased products  
19          that are carried out by their respective Depart-  
20          ments—

21                         “(i) the Secretary of Agriculture shall  
22                         designate, as the point of contact for the  
23                         Department of Agriculture, an officer of  
24                         the Department of Agriculture appointed  
25                         by the President to a position in the De-

1           partment before the date of the designa-  
2           tion, by and with the advice and consent of  
3           the Senate; and

4           “(ii) the Secretary of Energy shall  
5           designate, as the point of contact for the  
6           Department of Energy, an officer of the  
7           Department of Energy appointed by the  
8           President to a position in the Department  
9           before the date of the designation, by and  
10          with the advice and consent of the Senate.

11          “(B) DUTIES.—The points of contact shall  
12          jointly—

13                 “(i) assist in arranging interlabora-  
14                 tory and site-specific supplemental agree-  
15                 ments for research and development  
16                 projects relating to biobased fuels and  
17                 biobased products;

18                 “(ii) serve as cochairpersons of the  
19                 Board;

20                 “(iii) administer the Initiative; and

21                 “(iv) respond in writing to each rec-  
22                 ommendation of the Advisory Committee  
23                 made under subsection (f).

24          “(e) BIOMASS RESEARCH AND DEVELOPMENT  
25          BOARD.—

1           “(1) ESTABLISHMENT.—There is established  
2           the Biomass Research and Development Board,  
3           which shall supersede the Interagency Council on  
4           Biobased Products and Bioenergy established by Ex-  
5           ecutive Order No. 13134, to coordinate programs  
6           within and among departments and agencies of the  
7           Federal Government for the purpose of promoting  
8           the use of biobased fuels and biobased products by—

9                   “(A) maximizing the benefits deriving from  
10                  Federal grants and assistance; and

11                  “(B) bringing coherence to Federal stra-  
12                  tegic planning.

13           “(2) MEMBERSHIP.—The Board shall consist  
14           of—

15                  “(A) the point of contact of the Depart-  
16                  ment of Energy designated under subsection  
17                  (d), who shall serve as cochairperson of the  
18                  Board;

19                  “(B) the point of contact of the Depart-  
20                  ment of Agriculture designated under sub-  
21                  section (d), who shall serve as cochairperson of  
22                  the Board;

23                  “(C) a senior officer of each of the Depart-  
24                  ment of the Interior, the Environmental Protec-  
25                  tion Agency, the National Science Foundation,

1 and the Office of Science and Technology Pol-  
2 icy, each of whom shall—

3 “(i) be appointed by the head of the  
4 respective agency; and

5 “(ii) have a rank that is equivalent to  
6 the rank of the points of contact; and

7 “(D) at the option of the Secretary of Ag-  
8 riculture and the Secretary of Energy, other  
9 members appointed by the Secretaries (after  
10 consultation with the members described in sub-  
11 paragraphs (A) through (C)).

12 “(3) DUTIES.—The Board shall—

13 “(A) coordinate research and development  
14 activities relating to biobased fuels and biobased  
15 products—

16 “(i) between the Department of Agri-  
17 culture and the Department of Energy;  
18 and

19 “(ii) with other departments and  
20 agencies of the Federal Government;

21 “(B) provide recommendations to the  
22 points of contact concerning administration of  
23 this title;

24 “(C) ensure that—

1                   “(i) solicitations are open and com-  
2                   petitive with awards made annually; and

3                   “(ii) objectives and evaluation criteria  
4                   of the solicitations are clearly stated and  
5                   minimally prescriptive, with no areas of  
6                   special interest; and

7                   “(D) ensure that the panel of scientific  
8                   and technical peers assembled under subsection  
9                   (g) to review proposals is composed predomi-  
10                  nantly of independent experts selected from out-  
11                  side the Departments of Agriculture and En-  
12                  ergy.

13                  “(4) FUNDING.—Each agency represented on  
14                  the Board is encouraged to provide funds for any  
15                  purpose under this section.

16                  “(5) MEETINGS.—The Board shall meet at  
17                  least quarterly to enable the Board to carry out the  
18                  duties of the Board under paragraph (3).

19                  “(f) BIOMASS RESEARCH AND DEVELOPMENT TECH-  
20                  NICAL ADVISORY COMMITTEE.—

21                  “(1) ESTABLISHMENT.—There is established  
22                  the Biomass Research and Development Technical  
23                  Advisory Committee, which shall supersede the Advi-  
24                  sory Committee on Biobased Products and Bio-  
25                  energy established by Executive Order No. 13134—

1           “(A) to advise the Secretary of Energy, the  
2 Secretary of Agriculture, and the points of con-  
3 tact concerning—

4           “(i) the technical focus and direction  
5 of requests for proposals issued under the  
6 Initiative; and

7           “(ii) procedures for reviewing and  
8 evaluating the proposals;

9           “(B) to facilitate consultations and part-  
10 nerships among Federal and State agencies, ag-  
11 ricultural producers, industry, consumers, the  
12 research community, and other interested  
13 groups to carry out program activities relating  
14 to the Initiative; and

15           “(C) to evaluate and perform strategic  
16 planning on program activities relating to the  
17 Initiative.

18           “(2) MEMBERSHIP.—

19           “(A) IN GENERAL.—The Advisory Com-  
20 mittee shall consist of—

21           “(i) an individual affiliated with the  
22 biofuels industry;

23           “(ii) an individual affiliated with the  
24 biobased industrial and commercial prod-  
25 ucts industry;

1           “(iii) an individual affiliated with an  
2 institution of higher education who has ex-  
3 pertise in biobased fuels and biobased  
4 products;

5           “(iv) two prominent engineers or sci-  
6 entists from government or academia who  
7 have expertise in biobased fuels and  
8 biobased products;

9           “(v) an individual affiliated with a  
10 commodity trade association;

11           “(vi) 2 individuals affiliated with an  
12 environmental or conservation organiza-  
13 tion;

14           “(vii) an individual associated with  
15 State government who has expertise in  
16 biobased fuels and biobased products;

17           “(viii) an individual with expertise in  
18 energy and environmental analysis;

19           “(ix) an individual with expertise in  
20 the economics of biobased fuels and  
21 biobased products;

22           “(x) an individual with expertise in  
23 agricultural economics; and

24           “(xi) at the option of the points of  
25 contact, other members.

1           “(B) APPOINTMENT.—The members of the  
2           Advisory Committee shall be appointed by the  
3           points of contact.

4           “(3) DUTIES.—The Advisory Committee  
5           shall—

6           “(A) advise the points of contact with re-  
7           spect to the Initiative; and

8           “(B) evaluate whether, and make rec-  
9           ommendations in writing to the Board to en-  
10          sure that—

11           “(i) funds authorized for the Initiative  
12           are distributed and used in a manner that  
13           is consistent with the objectives, purposes,  
14           and considerations of the Initiative;

15           “(ii) solicitations are open and com-  
16           petitive with awards made annually and  
17           that objectives and evaluation criteria of  
18           the solicitations are clearly stated and  
19           minimally prescriptive, with no areas of  
20           special interest;

21           “(iii) the points of contact are funding  
22           proposals under this title that are selected  
23           on the basis of merit, as determined by an  
24           independent panel of scientific and tech-  
25           nical peers predominantly from outside the

1                   Departments of Agriculture and Energy;  
2                   and

3                   “(iv) activities under this section are  
4                   carried out in accordance with this section.

5                   “(4) COORDINATION.—To avoid duplication of  
6                   effort, the Advisory Committee shall coordinate its  
7                   activities with those of other Federal advisory com-  
8                   mittees working in related areas.

9                   “(5) MEETINGS.—The Advisory Committee  
10                  shall meet at least quarterly to enable the Advisory  
11                  Committee to carry out the duties of the Advisory  
12                  Committee.

13                  “(6) TERMS.—Members of the Advisory Com-  
14                  mittee shall be appointed for a term of 3 years, ex-  
15                  cept that—

16                  “(A) one-third of the members initially ap-  
17                  pointed shall be appointed for a term of 1 year;  
18                  and

19                  “(B) one-third of the members initially ap-  
20                  pointed shall be appointed for a term of 2  
21                  years.

22                  “(g) BIOMASS RESEARCH AND DEVELOPMENT INI-  
23                  TIATIVE.—

24                  “(1) IN GENERAL.—The Secretary of Agri-  
25                  culture and the Secretary of Energy, acting through

1 their respective points of contact and in consultation  
2 with the Board, shall establish and carry out a Bio-  
3 mass Research and Development Initiative under  
4 which competitively awarded grants, contracts, and  
5 financial assistance are provided to, or entered into  
6 with, eligible entities to carry out research on, and  
7 development and demonstration of, biobased fuels  
8 and biobased products, and the methods, practices  
9 and technologies, for their production.

10 “(2) OBJECTIVES.—The objectives of the Initia-  
11 tive are to develop—

12 “(A) technologies and processes necessary  
13 for abundant commercial production of biobased  
14 fuels at prices competitive with fossil fuels;

15 “(B) high-value biobased products—

16 “(i) to enhance the economic viability  
17 of biobased fuels and power; and

18 “(ii) as substitutes for petroleum-  
19 based feedstocks and products; and

20 “(C) a diversity of sustainable domestic  
21 sources of biomass for conversion to biobased  
22 fuels and biobased products.

23 “(3) PURPOSES.—The purposes of the Initiative  
24 are—

1           “(A) to increase the energy security of the  
2           United States;

3           “(B) to create jobs and enhance the eco-  
4           nomic development of the rural economy;

5           “(C) to enhance the environment and pub-  
6           lic health; and

7           “(D) to diversify markets for raw agricul-  
8           tural and forestry products.

9           “(4) TECHNICAL AREAS.—To advance the ob-  
10          jectives and purposes of the Initiative, the Secretary  
11          of Agriculture and the Secretary of Energy, in con-  
12          sultation with the Administrator of the Environ-  
13          mental Protection Agency and heads of other appro-  
14          priate departments and agencies (referred to in this  
15          subsection as the ‘Secretaries’), shall direct research  
16          and development toward—

17                 “(A) feedstock production through the de-  
18                 velopment of crops and cropping systems rel-  
19                 evant to production of raw materials for conver-  
20                 sion to biobased fuels and biobased products,  
21                 including—

22                         “(i) development of advanced and  
23                         dedicated crops with desired features, in-  
24                         cluding enhanced productivity, broader site

1 range, low requirements for chemical in-  
2 puts, and enhanced processing;

3 “(ii) advanced crop production meth-  
4 ods to achieve the features described in  
5 clause (i);

6 “(iii) feedstock harvest, handling,  
7 transport, and storage; and

8 “(iv) strategies for integrating feed-  
9 stock production into existing managed  
10 land;

11 “(B) overcoming recalcitrance of cellulosic  
12 biomass through developing technologies for  
13 converting cellulosic biomass into intermediates  
14 that can subsequently be converted into  
15 biobased fuels and biobased products, includ-  
16 ing—

17 “(i) pretreatment in combination with  
18 enzymatic or microbial hydrolysis; and

19 “(ii) thermochemical approaches, in-  
20 cluding gasification and pyrolysis;

21 “(C) product diversification through tech-  
22 nologies relevant to production of a range of  
23 biobased products (including chemicals, animal  
24 feeds, and cogenerated power) that eventually

1 can increase the feasibility of fuel production in  
2 a biorefinery, including—

3 “(i) catalytic processing, including  
4 thermochemical fuel production;

5 “(ii) metabolic engineering, enzyme  
6 engineering, and fermentation systems for  
7 biological production of desired products or  
8 cogeneration of power;

9 “(iii) product recovery;

10 “(iv) power production technologies;

11 and

12 “(v) integration into existing biomass  
13 processing facilities, including starch eth-  
14 anol plants, sugar processing or refining  
15 plants, paper mills, and power plants; and

16 “(D) analysis that provides strategic guid-  
17 ance for the application of biomass technologies  
18 in accordance with realization of improved sus-  
19 tainability and environmental quality, cost ef-  
20 fectiveness, security, and rural economic devel-  
21 opment, usually featuring system-wide ap-  
22 proaches.

23 “(5) ADDITIONAL CONSIDERATIONS.—Within  
24 the technical areas described in paragraph (4), and  
25 in addition to advancing the purposes described in

1 paragraph (3) and the objectives described in para-  
2 graph (2), the Secretaries shall support research and  
3 development—

4 “(A) to create continuously expanding op-  
5 portunities for participants in existing biofuels  
6 production by seeking synergies and continuity  
7 with current technologies and practices, such as  
8 the use of dried distillers grains as a bridge  
9 feedstock;

10 “(B) to maximize the environmental, eco-  
11 nomic, and social benefits of production of  
12 biobased fuels and biobased products on a large  
13 scale through life-cycle economic and environ-  
14 mental analysis and other means; and

15 “(C) to assess the potential of Federal  
16 land and land management programs as feed-  
17 stock resources for biobased fuels and biobased  
18 products, consistent with the integrity of soil  
19 and water resources and with other environ-  
20 mental considerations.

21 “(6) ELIGIBLE ENTITIES.—To be eligible for a  
22 grant, contract, or assistance under this subsection,  
23 an applicant shall be—

24 “(A) an institution of higher education;

25 “(B) a National Laboratory;

1           “(C) a Federal research agency;  
2           “(D) a State research agency;  
3           “(E) a private sector entity;  
4           “(F) a nonprofit organization; or  
5           “(G) a consortium of two or more entities  
6 described in subparagraphs (A) through (F).

7           “(7) ADMINISTRATION.—

8           “(A) IN GENERAL.—After consultation  
9 with the Board, the points of contact shall—

10           “(i) publish annually one or more  
11 joint requests for proposals for grants,  
12 contracts, and assistance under this sub-  
13 section;

14           “(ii) require that grants, contracts,  
15 and assistance under this section be  
16 awarded competitively, on the basis of  
17 merit, after the establishment of proce-  
18 dures that provide for scientific peer review  
19 by an independent panel of scientific and  
20 technical peers; and

21           “(iii) give some preference to applica-  
22 tions that—

23           “(I) involve a consortia of experts  
24 from multiple institutions;

1                   “(II) encourage the integration  
2                   of disciplines and application of the  
3                   best technical resources; and

4                   “(III) increase the geographic di-  
5                   versity of demonstration projects.

6                   “(B) DISTRIBUTION OF FUNDING BY  
7                   TECHNICAL AREA.—Of the funds authorized to  
8                   be appropriated for activities described in this  
9                   subsection, funds shall be distributed for each  
10                  of fiscal years 2007 through 2012 so as to  
11                  achieve an approximate distribution of—

12                  “(i) 20 percent of the funds to carry  
13                  out activities for feedstock production  
14                  under paragraph (4)(A);

15                  “(ii) 45 percent of the funds to carry  
16                  out activities for overcoming recalcitrance  
17                  of cellulosic biomass under paragraph  
18                  (4)(B);

19                  “(iii) 30 percent of the funds to carry  
20                  out activities for product diversification  
21                  under paragraph (4)(C); and

22                  “(iv) 5 percent of the funds to carry  
23                  out activities for strategic guidance under  
24                  paragraph (4)(D).

1           “(C) DISTRIBUTION OF FUNDING WITHIN  
2 EACH TECHNICAL AREA.—Within each technical  
3 area described in subparagraphs (A) through  
4 (C) of paragraph (4), funds shall be distributed  
5 for each of fiscal years 2007 through 2012 so  
6 as to achieve an approximate distribution of—

7                   “(i) 15 percent of the funds for ap-  
8 plied fundamentals;

9                   “(ii) 35 percent of the funds for inno-  
10 vation; and

11                   “(iii) 50 percent of the funds for dem-  
12 onstration.

13           “(D) MATCHING FUNDS.—

14                   “(i) IN GENERAL.—A minimum 20  
15 percent funding match shall be required  
16 for demonstration projects under this sec-  
17 tion.

18                   “(ii) COMMERCIAL APPLICATIONS.—A  
19 minimum of 50 percent funding match  
20 shall be required for commercial applica-  
21 tion projects under this section.

22           “(E) TECHNOLOGY AND INFORMATION  
23 TRANSFER TO AGRICULTURAL USERS.—The Ad-  
24 ministrator of the Cooperative State Research,  
25 Education, and Extension Service and the Chief

1 of the Natural Resources Conservation Service  
2 shall ensure that applicable research results and  
3 technologies from the Initiative are adapted,  
4 made available, and disseminated through those  
5 services, as appropriate.

6 “(h) ADMINISTRATIVE SUPPORT AND FUNDS.—

7 “(1) IN GENERAL.—To the extent administra-  
8 tive support and funds are not provided by other  
9 agencies under paragraph (2)(b), the Secretary of  
10 Energy and the Secretary of Agriculture may pro-  
11 vide such administrative support and funds of the  
12 Department of Energy and the Department of Agri-  
13 culture to the Board and the Advisory Committee as  
14 are necessary to enable the Board and the Advisory  
15 Committee to carry out their duties under this sec-  
16 tion.

17 “(2) OTHER AGENCIES.—The heads of the  
18 agencies referred to in subsection (e)(2)(C), and the  
19 other members appointed under subsection  
20 (e)(2)(D), may, and are encouraged to, provide ad-  
21 ministrative support and funds of their respective  
22 agencies to the Board and the Advisory Committee.

23 “(3) LIMITATION.—Not more than 4 percent of  
24 the amount appropriated for each fiscal year under

1 subsection (g)(6) may be used to pay the adminis-  
2 trative costs of carrying out this section.

3 “(i) REPORTS.—

4 “(1) ANNUAL REPORTS.—For each fiscal year  
5 for which funds are made available to carry out this  
6 section, the Secretary of Energy and the Secretary  
7 of Agriculture shall jointly submit to Congress a de-  
8 tailed report on—

9 “(A) the status and progress of the Initia-  
10 tive, including a report from the Advisory Com-  
11 mittee on whether funds appropriated for the  
12 Initiative have been distributed and used in a  
13 manner that—

14 “(i) is consistent with the objectives,  
15 purposes, and additional considerations de-  
16 scribed in paragraphs (2) through (5) of  
17 subsection (g);

18 “(ii) uses the set of criteria estab-  
19 lished in the initial report submitted under  
20 title III of the Agricultural Risk Protection  
21 Act of 2000;

22 “(iii) achieves the distribution of  
23 funds described in subparagraphs (B) and  
24 (C) of subsection (g)(7); and

1           “(iv) takes into account any rec-  
2           ommendations that have been made by the  
3           Advisory Committee;

4           “(B) the general status of cooperation and  
5           research and development efforts carried out at  
6           each agency with respect to biobased fuels and  
7           biobased products, including a report from the  
8           Advisory Committee on whether the points of  
9           contact are funding proposals that are selected  
10          under subsection (g)(3)(B)(iii); and

11          “(C) the plans of the Secretary of Energy  
12          and the Secretary of Agriculture for addressing  
13          concerns raised in the report, including con-  
14          cerns raised by the Advisory Committee.

15          “(2) UPDATES.—The Secretary and the Sec-  
16          retary of Energy shall update the Vision and Road-  
17          map documents prepared for Federal biomass re-  
18          search and development activities.

19          “(j) FUNDING.—

20          “(1) IN GENERAL.—Of the funds of the Com-  
21          modity Credit Corporation, the Secretary of Agri-  
22          culture shall make available to carry out this sec-  
23          tion—

24                  “(A) \$25,000,000 for fiscal year 2008;

25                  “(B) \$50,000,000 for fiscal year 2009;

1                   “(C) \$75,000,000 for fiscal year 2010;

2                   “(D) \$100,000,000 for fiscal year 2011;

3                   and

4                   “(E) \$100,000,000 for fiscal year 2012.

5                   “(2) ADDITIONAL FUNDING.—In addition to  
6                   amounts transferred under paragraph (1), there are  
7                   authorized to be appropriated to carry out this sec-  
8                   tion \$200,000,000 for each of fiscal years 2006  
9                   through 2015.”.

10                  (b) REPEAL.—Title III of the Agricultural Risk Pro-  
11                  tection Act of 2000 (Public Law 106-224) is hereby re-  
12                  pealed.

13                  **SEC. 5008. ADJUSTMENTS TO THE BIOENERGY PROGRAM.**

14                  Section 9010 of the Farm Security and Rural Invest-  
15                  ment Act of 2002 (7 U.S.C. 8108) is amended—

16                         (1) in subsection (a)—

17                                 (A) in paragraph (1)—

18   (i) in subparagraph (A), by striking  
19   “and”;

20   (ii) in subparagraph (B), by striking  
21   the final period and inserting a semicolon;  
22   and

23   (iii) by adding at the end the fol-  
24   lowing new subparagraphs:

1           “(C) production of heat and power at a  
2 biofuels plant;

3           “(D) biomass gasification;

4           “(E) hydrogen made from cellulosic com-  
5 modities for fuel cells;

6           “(F) renewable diesel; and

7           “(G) such other items as the Secretary  
8 considers appropriate.”;

9           (B) by striking paragraph (3) and insert-  
10 ing the following:

11           “(3) ELIGIBLE FEEDSTOCK.—

12           “(A) IN GENERAL.—The term ‘eligible  
13 feedstock’ means—

14           “(i) any plant material grown or col-  
15 lected for the purpose of being converted to  
16 energy (including aquatic plants);

17           “(ii) any organic byproduct or residue  
18 from agriculture and forestry, including  
19 mill residues and pulping residues that can  
20 be converted into energy;

21           “(iii) any waste material that can be  
22 converted to energy and is derived from  
23 plant material, including—

24           “(I) wood waste and residue;

1                   “(II) specialty crop waste, includ-  
2                   ing waste derived from orchard trees,  
3                   vineyard crops, and nut crops; or

4                   “(III) other fruit and vegetable  
5                   byproducts or residues; or

6                   “(iv) animal waste and byproducts.

7                   “(B) EXCLUSION.—The term ‘eligible feed-  
8                   stock’ does not include corn starch.”;

9                   (C) in paragraph (4), by striking “an eligi-  
10                  ble commodity” and inserting “eligible feed-  
11                  stock”; and

12                  (D) by adding at the end the following new  
13                  paragraph:

14                  “(5) RENEWABLE DIESEL.—The term ‘renew-  
15                  able diesel’ means any type of biobased renewable  
16                  fuel derived from plant or animal matter that may  
17                  be used as a substitute for standard diesel fuel and  
18                  meets the requirements of an appropriate American  
19                  Society for Testing and Material standard. Such  
20                  term does not include any fuel derived from coproc-  
21                  essing an eligible feedstock with a feedstock that is  
22                  not biomass.”;

23                  (2) in subsection (b)—

24                         (A) in paragraph (1)—

1 (i) by striking “The Secretary shall  
2 continue” and all that follows through “the  
3 Secretary makes” and inserting “The Sec-  
4 retary shall make”; and

5 (ii) by striking “eligible commodities”  
6 and inserting “eligible feedstock”;

7 (B) in paragraph (2)(B), by striking “eligi-  
8 ble commodities” and inserting “eligible feed-  
9 stock”;

10 (C) in paragraph (3), by striking subpara-  
11 graphs (B) and (C) and inserting the following:

12 “(B) PRIORITY.—In making payments  
13 under this paragraph, the Secretary shall give  
14 priority to contracts by considering the factors  
15 referred to in section 9003(e)(2)(B).”; and

16 (D) by striking paragraph (6) and insert-  
17 ing the following:

18 “(6) LIMITATION.—The Secretary may limit  
19 the amount of payments that may be received by an  
20 eligible producer under this section as the Secretary  
21 considers appropriate.”; and

22 (3) by striking subsection (e) and inserting the  
23 following:

1       “(c) FUNDING.—Of the funds of the Commodity  
2 Credit Corporation, the Secretary of Agriculture shall use  
3 to carry out this section—

4               “(1) \$175,000,000 for fiscal year 2008;

5               “(2) \$215,000,000 for fiscal year 2009;

6               “(3) \$250,000,000 for fiscal year 2010;

7               “(4) \$275,000,000 for fiscal year 2011; and

8               “(5) \$300,000,000 for fiscal year 2012.”.

9 **SEC. 5009. RESEARCH, EXTENSION, AND EDUCATIONAL**  
10 **PROGRAMS ON BIOBASED ENERGY TECH-**  
11 **NOLOGIES AND PRODUCTS.**

12       Section 9011(j)(1)(C) of the Farm Security and  
13 Rural Investment Act of 2002 (7 U.S.C. 8109(j)(1)(C))  
14 is amended by striking “2010” and inserting “2012”.

15 **SEC. 5010. ENERGY COUNCIL OF THE DEPARTMENT OF AG-**  
16 **RICULTURE.**

17       Title IX of the Farm Security and Rural Investment  
18 Act of 2002 (7 U.S.C. 8101 et seq.) is further amended  
19 by adding at the end the following new section:

20 **“SEC. 9012. ENERGY COUNCIL OF THE DEPARTMENT OF AG-**  
21 **RICULTURE.**

22       “(a) IN GENERAL.—The Secretary of Agriculture  
23 shall establish an energy council in the Office of the Sec-  
24 retary (in this section referred to as the ‘Council’) to co-  
25 ordinate the energy policy of the Department of Agri-

1 culture and consult with other departments and agencies  
2 of the Federal Government.

3 “(b) MEMBERSHIP.—

4 “(1) IN GENERAL.—The Secretary shall appoint  
5 the members of the Council from among the staff of  
6 the agencies and mission areas of the Department of  
7 Agriculture with responsibilities relating to energy  
8 programs or policies.

9 “(2) CHAIR.—The chief economist and the  
10 Under Secretary for Rural Development of the De-  
11 partment of Agriculture shall serve as the Chairs of  
12 the Council.

13 “(c) DUTIES OF OFFICE OF ENERGY POLICY AND  
14 NEW USES.—The Office of Energy Policy and New Uses  
15 of the Department of Agriculture shall support the activi-  
16 ties of the Council.”.

17 **SEC. 5011. FOREST BIOENERGY RESEARCH PROGRAM.**

18 Title IX of the Farm Security and Rural Investment  
19 Act of 2002 (7 U.S.C. 8101 et seq.) is further amended  
20 by adding at the end the following new section:

21 **“SEC. 9013. FOREST BIOENERGY RESEARCH PROGRAM.**

22 “(a) IN GENERAL.—The Secretary of Agriculture,  
23 working through the Forest Service, in cooperation with  
24 other Federal agencies, land grant colleges and univer-  
25 sities, and private entities, shall conduct a competitive re-

1 search and development program to encourage new forest-  
2 to-energy technologies. The Secretary may use grants, co-  
3 operative agreements, and other methods to partner with  
4 cooperating entities on projects that the Secretary deter-  
5 mines shall best promote new forest-to-energy tech-  
6 nologies.

7 “(b) PRIORITY FOR PROJECT SELECTION.—The Sec-  
8 retary shall give priority to projects that—

9 “(1) develop technology and techniques to use  
10 low value forest materials, such as byproducts of for-  
11 est health treatments and hazardous fuel reduction,  
12 for the production of energy;

13 “(2) develop processes for the conversion of cel-  
14 lulosic forest materials that integrate production of  
15 energy into existing manufacturing streams or in in-  
16 tegrated forest biorefineries;

17 “(3) develop new transportation fuels that use  
18 forest materials as a feedstock for the production of  
19 such fuels; or

20 “(4) improve the of growth and yield of trees  
21 for the purpose of renewable energy and other forest  
22 product use.

23 “(c) FUNDING.—Of the funds of the Commodity  
24 Credit Corporation, the Secretary of Agriculture shall  
25 make available to carry out this section—

- 1 “(1) \$4,000,000 for fiscal year 2008;  
2 “(2) \$6,000,000 for fiscal year 2009;  
3 “(3) \$7,000,000 for fiscal year 2010;  
4 “(4) \$9,000,000 for fiscal year 2011; and  
5 “(5) \$10,000,000 for fiscal year 2012.”.

6 **TITLE VI—CARBON-NEUTRAL**  
7 **GOVERNMENT**

8 **SEC. 6001. SHORT TITLE.**

9 This title may be cited as the “Carbon-Neutral Gov-  
10 ernment Act of 2007”.

11 **SEC. 6002. FINDINGS.**

12 The Congress finds the following:

13 (1) The harms associated with global warming  
14 are serious and well recognized. These include the  
15 global retreat of mountain glaciers, reduction in  
16 snow cover extent, the earlier spring melting of riv-  
17 ers and lakes, the accelerated rate of rise of sea lev-  
18 els during the 20th century relative to the past few  
19 thousand years, and increased intensity of hurri-  
20 canes and typhoons.

21 (2) The risks associated with a global mean  
22 surface temperature increase above 2 °C (3.6 °F)  
23 above preindustrial temperature are grave. Accord-  
24 ing to the Intergovernmental Panel on Climate  
25 Change, such temperature increases would increase

1 the severity of ongoing alterations of terrestrial and  
2 marine environments, with potentially catastrophic  
3 results. Ongoing and projected effects include more  
4 prevalent droughts in dry regions, an increase in the  
5 spread of disease, a significant reduction in water  
6 storage in winter snowpack in mountainous regions  
7 with direct and important economic consequences, a  
8 precipitous rise in sea levels by the end of the cen-  
9 tury, the potential devastation of coastal commu-  
10 nities, severe and irreversible changes to natural eco-  
11 systems such as the bleaching and destruction of  
12 much of the world's coral, and the potential extinc-  
13 tion of 30 percent of all living species.

14 (3) That these climate change effects and risks  
15 of future effects are widely shared does not minimize  
16 the adverse affects individual persons have suffered,  
17 will suffer, and are at risk of suffering because of  
18 global warming.

19 (4) That some of the adverse and potentially  
20 catastrophic effects of global warming are presently  
21 at risk of occurring and not a certainty does not ne-  
22 gate the harm persons suffer from actions that in-  
23 crease the likelihood, extent, and severity of such fu-  
24 ture impacts.

1           (5) To preserve the ability to stabilize atmos-  
2           pheric greenhouse gas concentrations at levels likely  
3           to protect against a temperature rise above 2 °C  
4           (3.6 °F) and maintain the likelihood of avoiding cat-  
5           astrophic global warming will require reductions of  
6           greenhouse gas emissions of 50 percent to 85 per-  
7           cent globally.

8           (6) Achieving such reductions will require a  
9           multitude of actions across the global economy that  
10          may each address a relatively minute quantity of  
11          emissions, but will be cumulatively significant.

12          (7) With only 5 percent of the world population,  
13          the United States emits approximately 20 percent of  
14          the world's total greenhouse gas emissions, and must  
15          be a leader in addressing global warming.

16          (8) The United States Government is the larg-  
17          est energy consumer in the United States and is re-  
18          sponsible for roughly 100,000,000 metric tons of  
19          CO<sub>2</sub>-equivalent emissions annually.

20          (9) A reduction in greenhouse gas emissions by  
21          Federal agencies would slow the increase of global  
22          emissions, thereby slowing the increase of global  
23          warming and the exacerbation of the risks associated  
24          with global warming. In addition, Federal action  
25          would accelerate the pace of development and adop-

1       tion of technologies that will be critical to addressing  
2       global warming in the United States and worldwide.

3           (10) A failure by any Federal agency to comply  
4       with the provisions of this title requiring reductions  
5       in its greenhouse gas emissions would exacerbate the  
6       pace, extent, and risks of global warming, causing  
7       harms beyond what would otherwise occur. The in-  
8       cremental emissions from a Federal agency's failure  
9       to comply with this title create a harm, which is the  
10      incremental exacerbation of the adverse effects and  
11      risks of global warming. Although the emissions in-  
12      crements involved could be relatively small, such a  
13      failure allowing incrementally greater emissions  
14      would injure all United States citizens.

15          (11) Improved management of Government op-  
16      erations, including acquisitions and procurement and  
17      operation of Government facilities, can maximize the  
18      use of existing energy efficiency and renewable en-  
19      ergy technologies to reduce global warming pollution,  
20      while saving taxpayers' money, reducing our depend-  
21      ence on oil, enhancing national security, cleaning the  
22      air, and protecting pristine places from drilling and  
23      mining.

24          (12) Enhancing the accountability and trans-  
25      parency of Government operations through setting

1 milestones for agency activities, planning, measuring  
2 results, tracking results over time, and public report-  
3 ing can improve Government management and make  
4 Government operations more efficient and cost effec-  
5 tive.

6 **Subtitle A—Federal Government**  
7 **Inventory and Management of**  
8 **Greenhouse Gas Emissions**

9 **SEC. 6101. INVENTORY OF FEDERAL GOVERNMENT GREEN-**  
10 **HOUSE GAS EMISSIONS.**

11 (a) IN GENERAL.—Each agency shall, in accordance  
12 with the guidance issued under subsection (b), annually  
13 inventory and report its greenhouse gas emissions for the  
14 preceding fiscal year. Each such inventory and report shall  
15 indicate as discrete categories—

16 (1) any direct emission of greenhouse gas as a  
17 result of an activity of the agency;

18 (2) the quantity of indirect emissions of green-  
19 house gases attributable to the generation of elec-  
20 tricity used by the agency and commercial air travel  
21 by agency personnel; and

22 (3) the quantity of emissions of greenhouse  
23 gases associated with the work performed for the  
24 agency by Federal contractors, comprising direct  
25 emissions and indirect emissions associated with

1 electricity used by, and commercial air travel by,  
2 such contractors.

3 (b) GUIDANCE; ASSISTANCE.—Not later than 3  
4 months after the date of the enactment of this Act, the  
5 Administrator shall issue guidance for agencies for con-  
6 ducting inventories under this section and reporting under  
7 section 6102. Such guidance shall establish inventory and  
8 reporting procedures that are at least as rigorous as the  
9 inventory procedures established under the Environmental  
10 Protection Agency’s Climate Leaders program and shall  
11 define the scope of the inventories of direct emissions de-  
12 scribed in subsection (a)(1) to be complete and consistent  
13 with the national obligation for reporting inventories  
14 under the United Nations Framework Convention on Cli-  
15 mate Change. The Administrator shall provide assistance  
16 to agencies in preparing their inventories.

17 (c) INITIAL INVENTORY BY AGENCIES.—

18 (1) SUBMISSION.—Not later than 1 year after  
19 the date of the enactment of this Act, each agency  
20 shall submit to the Administrator and make publicly  
21 available on the agency’s website an initial inventory  
22 of the agency’s greenhouse gas emissions for the  
23 preceding fiscal year.

24 (2) CERTIFICATION.—Not later than 6 months  
25 after an agency submits an initial inventory under

1 paragraph (1), the Administrator shall review the in-  
2 ventory for compliance with the guidance issued  
3 under subsection (b) and—

4 (A) certify that the inventory is technically  
5 valid; or

6 (B) decline to certify the inventory and  
7 provide an explanation of the actions or revi-  
8 sions that are necessary for the inventory to be  
9 certified under subparagraph (A).

10 (3) REVISION.—If the Administrator declines to  
11 certify the inventory of an agency under paragraph  
12 (2)(B), the agency shall submit to the Administrator  
13 and make publicly available on the agency’s website  
14 a revised inventory not later than 6 months after the  
15 date on which the Administrator provides the agency  
16 with the explanation required by such paragraph.

17 (d) NET GREENHOUSE GASES FROM FEDERAL  
18 LANDS.—Beginning not later than 2 years after the date  
19 of enactment of this Act, the Secretary of the Interior and  
20 the Secretary of Agriculture shall include as a discrete cat-  
21 egory in any inventory under this section the net biological  
22 sequestration or emission of greenhouse gases related to  
23 human activities and associated with land managed by the  
24 Bureau of Land Management or the Forest Service. In  
25 developing such estimates of the net biological sequestra-

1 tion or emission of greenhouse gases, the Secretary of the  
2 Interior and the Secretary of Agriculture shall take into  
3 consideration the results of any available related assess-  
4 ments performed by the Secretary of the Interior. Such  
5 net biological sequestration or emissions of greenhouse  
6 gases shall not be considered for the purposes of setting  
7 or measuring progress toward targets under section 6102.  
8 For the purposes of this subsection, the net biological se-  
9 questration or emission of greenhouse gases refers to the  
10 net sequestration or emissions associated with uptake and  
11 release of greenhouse gases from soil, vegetation, and dead  
12 organic matter.

13 **SEC. 6102. MANAGEMENT OF FEDERAL GOVERNMENT**  
14 **GREENHOUSE GAS EMISSIONS.**

15 (a) EMISSION REDUCTION TARGETS.—Not later than  
16 18 months after the date of the enactment of this Act,  
17 the Administrator shall promulgate annual reduction tar-  
18 gets for the total quantity of greenhouse gas emissions de-  
19 scribed in section 6101(a), expressed as carbon dioxide  
20 equivalents, of all agencies, taken collectively, for each of  
21 fiscal years 2010 through 2050.

22 (b) GOALS.—The targets promulgated under sub-  
23 section (a) shall be calculated so as—

24 (1) to prevent the total quantity of greenhouse  
25 gas emissions of all agencies in fiscal year 2011 and

1 each subsequent fiscal year from exceeding the total  
2 quantity of such emissions in fiscal year 2010; and

3 (2) to reduce such greenhouse gas emissions as  
4 rapidly as possible, but at a minimum by a quantity  
5 equal to 2 percent of projected fiscal year 2010  
6 emissions each fiscal year, so as to achieve zero net  
7 annual greenhouse gas emissions from the agencies  
8 by fiscal year 2050.

9 (c) PROPORTIONATE SHARE.—Each agency shall  
10 limit the quantity of its greenhouse gas emissions de-  
11 scribed in section 6101(a) to its proportionate share so  
12 as to enable the agencies to achieve the targets promul-  
13 gated under subsection (a). The Administrator shall pro-  
14 mulgate annual reduction targets to be met by each agen-  
15 cy to comply with this subsection, after consultation with  
16 the agencies and taking into account changes in agency  
17 size, structure, and mission over time.

18 (d) AGENCY PLANS FOR MANAGING EMISSIONS.—

19 (1) SUBMISSION.—Not later than 2 years after  
20 the date of the enactment of this Act, each agency  
21 shall develop, submit to the Administrator, and  
22 make publicly available on the agency’s website a  
23 plan for achieving the annual reduction targets ap-  
24 plicable to such agency under this section through  
25 fiscal year 2020. Not later than 2 years before the

1 10-year period beginning in 2021 and each subse-  
2 quent 10-year period, the agency shall develop, sub-  
3 mit to the Administrator, and make publicly avail-  
4 able an updated plan for achieving such targets for  
5 the respective period. Each plan developed under  
6 this paragraph shall—

7 (A) identify the specific actions to be taken  
8 by the agency; and

9 (B) estimate the quantity of reductions of  
10 greenhouse gas emissions to be achieved  
11 through each such action.

12 (2) CERTIFICATION.—Not later than 6 months  
13 after an agency submits a plan under paragraph (1),  
14 the Administrator shall—

15 (A) certify that the plan is technically  
16 sound and, if implemented, is expected to limit  
17 the quantity of the agency's greenhouse gas  
18 emissions to its proportionate share under sub-  
19 section (c); or

20 (B) decline to certify the plan and provide  
21 an explanation of the revisions that are nec-  
22 essary for the plan to be certified under sub-  
23 paragraph (A).

24 (3) REVISION.—If the Administrator declines to  
25 certify the plan of an agency under paragraph (2),

1 the agency shall submit to the Administrator and  
2 make publicly available on the agency's website a re-  
3 vised plan not later than 6 months after the date on  
4 which the Administrator provides the agency with  
5 the explanation required by paragraph (2)(B).

6 (e) EMISSIONS MANAGEMENT.—

7 (1) REQUIREMENT.—Each agency shall imple-  
8 ment each provision in its plan under subsection (d)  
9 to manage its greenhouse gas emissions to meet the  
10 annual reduction targets applicable to such agency  
11 under this section. If—

12 (A) an agency has met its applicable re-  
13 duction target for the most recent year; and

14 (B) the agency demonstrates that it is pro-  
15 jected to meet such targets for future years  
16 without implementing a provision or provisions  
17 included in its plan,

18 the agency may revise its plan, subject to subsection  
19 (d)(2), to defer implementation of such plan provi-  
20 sions until the date that implementation is needed to  
21 meet the agency's applicable targets.

22 (2) REVISION OF PLAN.—If any agency fails to  
23 meet such targets for a fiscal year, as indicated by  
24 the inventory and report prepared by the agency for  
25 such fiscal year, the agency shall submit to the Ad-

1 administrator and make publicly available on the agen-  
2 cy's website a revised plan under subsection (d) not  
3 later than March 31 of the following fiscal year. The  
4 Administrator shall certify or decline to certify the  
5 revised plan in accordance with subsection (d)(2) not  
6 later than 3 months after receipt of the revised plan.

7 (3) OFFSETS.—

8 (A) PROPOSAL.—If no national mandatory  
9 economy-wide cap-and-trade program for green-  
10 house gases has been enacted by fiscal year  
11 2010, the Administrator shall develop and sub-  
12 mit to the Congress by 2011 a proposal to allow  
13 agencies to meet the annual reduction targets  
14 applicable to such agencies under this section in  
15 part through emissions offsets, beginning in fis-  
16 cal year 2015.

17 (B) CONTENTS.—The proposal developed  
18 under subparagraph (A) shall ensure that emis-  
19 sions offsets are—

20 (i) real, surplus, verifiable, permanent,  
21 and enforceable; and

22 (ii) additional for both regulatory and  
23 financial purposes (such that the generator  
24 of the offset is not receiving credit or com-

1           pensation for the offset in another regu-  
2           latory or market context).

3           (C) RULEMAKING.—If by 2012 the Con-  
4           gress has not enacted a statute for the express  
5           purpose of codifying the proposal developed  
6           under subparagraph (A) or an alternative to  
7           such proposal, the Administrator shall imple-  
8           ment the proposal through rulemaking.

9           (4) EXEMPTIONS.—The President may exempt  
10          an agency from complying with the emissions target  
11          established for that year under subsection (c) if the  
12          President determines it to be in the paramount in-  
13          terest of the United States to do so. The agency  
14          shall, to the greatest extent practicable, continue to  
15          implement the provisions in the agency’s plan. Any  
16          exemption shall be for a period not in excess of one  
17          year, but additional exemptions may be granted for  
18          periods of not more than one year upon the Presi-  
19          dent’s making a new determination.

20          (f) STUDIES ON FEDERAL LANDS.—The Forest Serv-  
21          ice, the Bureau of Land Management, the National Park  
22          Service, and the United States Fish and Wildlife Service  
23          shall—

24                 (1) within 3 years after the date of the enact-  
25          ment of this Act, conduct studies of the opportuni-

1 ties for management strategies, and identify those  
2 management strategies with the greatest potential,  
3 to—

4 (A) enhance net biological sequestration of  
5 greenhouse gases on Federal lands they manage  
6 while avoiding harmful effects on other environ-  
7 mental values; and

8 (B) reduce negative impacts of global  
9 warming on biodiversity, water supplies, forest  
10 health, biological sequestration and storage, and  
11 related values;

12 (2) within 4 years after the date of the enact-  
13 ment of this Act, study the results that could be  
14 achieved through applying management strategies  
15 identified as having the greatest potential to achieve  
16 the benefits described in paragraph (1) by imple-  
17 menting field experiments on discrete portions of se-  
18 lected land management units in different parts of  
19 the Nation to test such strategies; and

20 (3) report to the Congress on the results of the  
21 studies.

22 (g) STUDY ON URBAN AND WILDLAND-URBAN FOR-  
23 ESTRY PROGRAMS.—Within 2 years of the date of enact-  
24 ment of this Act, the Forest Service, in consultation with  
25 appropriate State and local agencies, shall conduct a study

1 of the opportunities of urban and wildland-urban interface  
2 forestry programs to enhance net biological sequestration  
3 of greenhouse gases and achieve other benefits.

4 (h) REPORTING.—

5 (1) REPORTS BY AGENCIES.—Not later than  
6 December 31 each fiscal year, each agency shall sub-  
7 mit to the Administrator and make publicly available  
8 on the agency’s website a report on the agency’s im-  
9 plementation of its plan required by subsection (d)  
10 for the preceding fiscal year, including the inventory  
11 of greenhouse gas emissions of the agency during  
12 such fiscal year.

13 (2) ANNUAL REPORT TO CONGRESS.—The Ad-  
14 ministrator shall review each report submitted under  
15 paragraph (1) for technical validity and compile  
16 such reports in an annual report on the Federal  
17 Government’s progress toward carbon neutrality.  
18 The Administrator shall submit such annual report  
19 to the Committee on Oversight and Government Re-  
20 form of the House of Representatives and the Com-  
21 mittee on Governmental Affairs of the Senate and  
22 make such annual report publicly available on the  
23 Environmental Protection Agency’s website.

24 (3) ELECTRONIC SUBMISSION.—In complying  
25 with any requirement of this subtitle for submission

1 of inventories, plans, or reports, an agency shall use  
2 electronic reporting in lieu of paper copy reports.

3 **SEC. 6103. PILOT PROJECT FOR PURCHASE OF OFFSETS**  
4 **AND CERTIFICATES.**

5 (a) GAO STUDY.—No later than April 1, 2008, the  
6 Comptroller General of the United States shall issue the  
7 report requested by the Congress on May 17, 2007, re-  
8 garding markets for greenhouse gas emissions offsets.

9 (b) PILOT PROJECT.—Executive agencies and legisla-  
10 tive branch offices may purchase qualified greenhouse gas  
11 offsets and qualified renewable energy certificates in any  
12 open market transaction that complies with all applicable  
13 procurement rules and regulations.

14 (c) QUALIFIED GREENHOUSE GAS OFFSETS.—For  
15 purposes of this section, the term “qualified greenhouse  
16 gas offset” means a real, additional, verifiable, enforce-  
17 able, and permanent domestic—

18 (1) reduction of greenhouse gas emissions; or

19 (2) sequestration of greenhouse gases.

20 (d) QUALIFIED RENEWABLE ENERGY CERTIFI-  
21 CATES.—For purposes of this section, the term “qualified  
22 renewable energy certificate” means a certificate rep-  
23 resenting a specific amount of energy generated by a re-  
24 newable energy project that is real, additional, and  
25 verifiable.

1 (e) GUIDANCE.—No later than September 30, 2008,  
2 the Administrator shall issue guidelines, for Executive  
3 agencies, establishing criteria for qualified greenhouse gas  
4 offsets and qualified renewable energy certificates. Such  
5 guidelines shall take into account the findings and rec-  
6 ommendations of the report issued under subsection (a)  
7 and shall—

8 (1) establish performance standards for green-  
9 house gas offset projects that benchmark reliably ex-  
10 pected greenhouse gas reductions from identified  
11 categories of projects that reduce greenhouse gas  
12 emissions or sequester carbon in accordance with  
13 subsection (c); and

14 (2) establish criteria for qualified renewable en-  
15 ergy certificates to ensure that energy generated is  
16 renewable and is in accordance with subsection (d).

17 (f) REPORT.—The Comptroller General of the United  
18 States shall evaluate the pilot program established by this  
19 section, including identifying environmental and other  
20 benefits of the program, as well as its financial costs and  
21 any disadvantages associated with the program. No later  
22 than April 1, 2011, the Comptroller General shall provide  
23 a report to the Committee on Oversight and Government  
24 Reform of the House of Representatives and the Com-  
25 mittee on Homeland Security and Governmental Affairs

1 of the Senate providing the details of the evaluation and  
2 any recommendations for improvement.

3 (g) ADDITIONAL DEFINITIONS.—In this section:

4 (1) Notwithstanding section 6106(3) of this  
5 Act, the term “Executive agency” has the meaning  
6 given to such term in section 105 of title 5, United  
7 States Code.

8 (2) The term “renewable energy” has the  
9 meaning given that term in section 203(b) of the  
10 Energy Policy Act of 2005 (42 U.S.C. 15852(b)(2)),  
11 except that energy generated from municipal solid  
12 waste shall not be renewable energy.

13 (h) AUTHORIZATION.—Of the amount of discre-  
14 tionary funds available to each Executive agency or legis-  
15 lative branch office for each of fiscal years 2009 and 2010,  
16 not more than 0.01 percent of such amount may be used  
17 for the purpose of carrying out this section. Such funding  
18 shall be in addition to any other funds available to the  
19 Executive agency or legislative branch office for such pur-  
20 pose.

21 (i) SUNSET CLAUSE.—This section ceases to be effec-  
22 tive at the end of fiscal year 2010.

1 **SEC. 6104. IMPACT ON AGENCY'S PRIMARY MISSION.**

2 In implementing the requirements of this subtitle,  
3 each agency should adopt compliance strategies that are  
4 consistent with the agency's primary mission.

5 **SEC. 6105. SAVINGS CLAUSE.**

6 Nothing in this title or any amendment made by this  
7 title shall be interpreted to preempt or limit the authority  
8 of a State to take any action to address global warming.

9 **SEC. 6106. DEFINITIONS.**

10 In this subtitle:

11 (1) The term "Administrator" means the Ad-  
12 ministrator of the Environmental Protection Agency.

13 (2) The term "carbon dioxide equivalent"  
14 means, for each greenhouse gas, the quantity of the  
15 greenhouse gas that makes the same contribution to  
16 global warming as 1 metric ton of carbon dioxide, as  
17 determined by the Administrator, taking into ac-  
18 count the global warming potentials published by the  
19 Intergovernmental Panel on Climate Change.

20 (3) The term "agency" has the meaning given  
21 to that term in section 551 of the National Energy  
22 Conservation Policy Act (42 U.S.C. 8259).

23 (4) The term "greenhouse gas" means—

24 (A) carbon dioxide;

25 (B) methane;

26 (C) nitrous oxide;

- 1 (D) hydrofluorocarbons;  
2 (E) perfluorocarbons;  
3 (F) sulfur hexafluoride; or  
4 (G) any other anthropogenically-emitted  
5 gas that the Administrator, after notice and  
6 comment, determines contributes to global  
7 warming to a non-negligible degree.

8 **SEC. 6107. AUTHORIZATION OF APPROPRIATIONS.**

9 There are authorized to be appropriated such sums  
10 as may be necessary to implement this subtitle.

11 **Subtitle B—Federal Government**  
12 **Energy Efficiency**

13 **SEC. 6201. FEDERAL VEHICLE FLEETS.**

14 Section 303 of the Energy Policy Act of 1992 (42  
15 U.S.C. 13212) is amended—

16 (1) by redesignating subsection (f) as sub-  
17 section (g); and

18 (2) by inserting after subsection (e) the fol-  
19 lowing new subsection:

20 “(f) VEHICLE EMISSION REQUIREMENTS.—

21 “(1) PROHIBITION.—No Federal agency shall  
22 acquire a light duty motor vehicle or medium duty  
23 passenger vehicle that is not a low greenhouse gas  
24 emitting vehicle.

1           “(2) GUIDANCE.—Each year, the Administrator  
2 of the Environmental Protection Agency shall issue  
3 guidance identifying the makes and model numbers  
4 of vehicles that are low greenhouse gas emitting ve-  
5 hicles. In identifying such vehicles, the Adminis-  
6 trator shall take into account the most stringent  
7 standards for vehicle greenhouse gas emissions ap-  
8 plicable to and enforceable against motor vehicle  
9 manufacturers for vehicles sold anywhere in the  
10 United States. The Administrator shall not identify  
11 any vehicle as a low greenhouse gas emitting vehicle  
12 if the vehicle emits greenhouse gases at a higher  
13 rate than such standards allow for the manufactur-  
14 er’s fleet average grams per mile of carbon dioxide-  
15 equivalent emissions for that class of vehicle, taking  
16 into account any emissions allowances and adjust-  
17 ment factors such standards provide.

18           “(3) DEFINITION.—For purposes of this sub-  
19 section, the term ‘medium duty passenger vehicle’  
20 has the meaning given that term section 523.2 of  
21 title 49 of the Code of Federal Regulations.”.

22 **SEC. 6202. AGENCY ANALYSES FOR MOBILITY ACQUISI-**  
23 **TIONS.**

24           (a) COST ESTIMATE REQUIREMENT.—Each Federal  
25 agency that owns, operates, maintains, or otherwise funds

1 infrastructure, assets, or personnel to provide delivery of  
2 fuel to its operations shall apply activity based cost ac-  
3 counting principles to estimate the fully burdened cost of  
4 fuel.

5 (b) USE OF COST ESTIMATE.—Each agency shall use  
6 the fully burdened cost of fuel, as estimated under sub-  
7 section (a), in conducting analyses and making decisions  
8 regarding its activities that create a demand for energy.  
9 Such analyses and decisions shall include—

10 (1) the use of models, simulations, wargames,  
11 and other analytical tools to determine the types of  
12 energy consuming equipment that an agency needs  
13 to conduct its missions;

14 (2) life-cycle cost benefit analyses and other  
15 trade-off analyses for determining the cost effective-  
16 ness of measures that improve the energy efficiency  
17 of an agency's equipment and systems;

18 (3) analyses and decisions conducted or made  
19 by others for the agency; and

20 (4) procurement and acquisition source selec-  
21 tion criteria, requests for proposals, and best value  
22 determinations.

23 (c) REVISION OF ANALYTICAL TOOLS.—If a Federal  
24 agency employs models, simulations, wargames, or other  
25 analytical tools that require substantial upgrades to enable

1 those tools to be used in compliance with this section, the  
2 agency shall complete such necessary upgrades not later  
3 than 4 years after the date of enactment of this Act.

4 (d) DEFINITION.—For purposes of this section, the  
5 term “fully burdened cost of fuel” means the commodity  
6 price for the fuel plus the total cost of all personnel and  
7 assets required to move and, where applicable, protect, the  
8 fuel from the point at which the fuel is received from the  
9 commercial supplier to the point of use.

10 **SEC. 6203. FEDERAL PROCUREMENT OF ENERGY EFFI-**  
11 **CIENT PRODUCTS.**

12 (a) AMENDMENTS.—Section 553 of the National En-  
13 ergy Conservation Policy Act (42 U.S.C. 8259b) is amend-  
14 ed—

15 (1) in subsection (b)(1), by inserting “in a  
16 product category covered by the Energy Star pro-  
17 gram or the Federal Energy Management Program  
18 for designated products” after “energy consuming  
19 product”; and

20 (2) in subsection (c)—

21 (A) by inserting “list in their catalogues,  
22 represent as available, and” after “Logistics  
23 Agency shall”; and

24 (B) by striking “where the agency” and in-  
25 serting “where the head of the agency”.

1 (b) CATALOGUE LISTING DEADLINE.—Not later than  
2 9 months after the date of enactment of this Act, the Gen-  
3 eral Services Administration and the Defense Logistics  
4 Agency shall ensure that the requirement in the amend-  
5 ment made under subsection (a)(2)(A) has been fully com-  
6 plied with.

7 **SEC. 6204. FEDERAL BUILDING ENERGY EFFICIENCY PER-**  
8 **FORMANCE STANDARDS.**

9 (a) STANDARDS.—Section 305(a)(3) of the Energy  
10 Conservation and Production Act (42 U.S.C. 6834(a)(3))  
11 is amended by adding at the end the following new sub-  
12 paragraph:

13 “(D) Not later than 1 year after the date of enact-  
14 ment of the Carbon-Neutral Government Act of 2007, the  
15 Secretary shall establish, by rule, revised Federal building  
16 energy efficiency performance standards that require that:

17 “(i) For new Federal buildings and Federal  
18 buildings undergoing major renovations, with respect  
19 to which the Administrator of General Services is re-  
20 quired to transmit a prospectus to Congress under  
21 section 3307 of title 40, United States Code, in the  
22 case of public buildings (as defined in section 3301  
23 of title 40, United States Code), or of at least  
24 \$2,500,000 in costs adjusted annually for inflation  
25 for other buildings:

1           “(I) The buildings shall be designed so  
2           that the fossil fuel-generated energy consump-  
3           tion of the buildings is reduced, as compared  
4           with such energy consumption by a similar  
5           building in fiscal year 2003 (as measured by  
6           Commercial Buildings Energy Consumption  
7           Survey or Residential Energy Consumption  
8           Survey data from the Energy Information  
9           Agency), by the percentage specified in the fol-  
10          lowing table:

“Fiscal Year	Percentage Reduction
2010 .....	55
2015 .....	65
2020 .....	80
2025 .....	90
2030 .....	100.

11           “(II) Sustainable design principles shall be  
12           applied to the siting, design, and construction  
13           of such buildings. Not later than 60 days after  
14           the date of enactment of the Carbon-Neutral  
15           Government Act of 2007, the Secretary, in con-  
16           sultation with the Administrator of General  
17           Services, and in consultation with the Secretary  
18           of Defense for considerations relating to those  
19           facilities under the custody and control of the  
20           Department of Defense, shall identify a certifi-  
21           cation system and level for green buildings that  
22           the Secretary determines to be the most likely

1 to encourage a comprehensive and environ-  
2 mentally-sound approach to certification of  
3 green buildings. The identification of the certifi-  
4 cation system and level shall be based on the  
5 criteria specified in clause (ii) and shall achieve  
6 results at least comparable to the United States  
7 Green Building Council Leadership in Energy  
8 and Environmental Design silver level. Within  
9 60 days of the completion of each study re-  
10 quired by clause (iii), the Secretary, in con-  
11 sultation with the Administrator of General  
12 Services, and in consultation with the Secretary  
13 of Defense for considerations relating to those  
14 facilities under the custody and control of the  
15 Department of Defense, shall review and update  
16 the certification system and level, taking into  
17 account the conclusions of such study.

18 “(ii) In identifying the green building certifi-  
19 cation system and level, the Secretary shall take into  
20 consideration—

21 “(I) the ability and availability of assessors  
22 and auditors to independently verify the criteria  
23 and measurement of metrics at the scale nec-  
24 essary to implement this subparagraph;

1           “(II) the ability of the applicable certifi-  
2 cation organization to collect and reflect public  
3 comment;

4           “(III) the ability of the standard to be de-  
5 veloped and revised through a consensus-based  
6 process;

7           “(IV) an evaluation of the robustness of  
8 the criteria for a high-performance green build-  
9 ing, which shall give credit for promoting—

10           “(aa) efficient and sustainable use of  
11 water, energy, and other natural resources;

12           “(bb) use of renewable energy sources;

13           “(cc) improved indoor environmental  
14 quality through enhanced indoor air qual-  
15 ity, thermal comfort, acoustics, day light-  
16 ing, pollutant source control, and use of  
17 low-emission materials and building system  
18 controls; and

19           “(dd) such other criteria as the Sec-  
20 retary determines to be appropriate; and

21           “(V) national recognition within the build-  
22 ing industry.

23           “(iii) At least once every five years, the Admin-  
24 istrator of General Services shall conduct a study to  
25 evaluate and compare available third-party green

1 building certification systems and levels, taking into  
2 account the criteria listed in clause (ii).

3 “(iv) The Secretary may by rule allow Federal  
4 agencies to develop internal certification processes,  
5 using certified professionals, in lieu of certification  
6 by the certification entity identified under clause  
7 (i)(II). The Secretary shall include in any such rule  
8 guidelines to ensure that the certification process re-  
9 sults in buildings meeting the applicable certification  
10 system and level identified under clause (i)(II). An  
11 agency employing an internal certification process  
12 must continue to obtain external certification by the  
13 certification entity identified under clause (i)(II) for  
14 at least 5 percent of the total number of buildings  
15 certified annually by the agency.

16 “(v) With respect to privatized military hous-  
17 ing, the Secretary of Defense, after consultation  
18 with the Secretary may, through rulemaking, develop  
19 alternative criteria to those established by subclauses  
20 (I) and (II) of clause (i) that achieve an equivalent  
21 result in terms of energy savings, sustainable design,  
22 and green building performance.

23 “(vi) In addition to any use of water conserva-  
24 tion technologies otherwise required by this section,  
25 water conservation technologies shall be applied to

1 the extent that the technologies are life-cycle cost-ef-  
2 fective.”.

3 (b) DEFINITIONS.—Section 303(6) of the Energy  
4 Conservation and Production Act (42 U.S.C. 6832(6)) is  
5 amended by striking “which is not legally subject to State  
6 or local building codes or similar requirements.” and in-  
7 serting “. Such term shall include buildings built for the  
8 purpose of being leased by a Federal agency, and  
9 privatized military housing.”.

10 **SEC. 6205. MANAGEMENT OF FEDERAL BUILDING EFFI-**  
11 **CIENCY.**

12 (a) LARGE CAPITAL ENERGY INVESTMENTS.—Sec-  
13 tion 543 of the National Energy Conservation Policy Act  
14 (42 U.S.C. 8253) is amended by adding at the end the  
15 following new subsection:

16 “(f) LARGE CAPITAL ENERGY INVESTMENTS.—Each  
17 Federal agency shall ensure that any large capital energy  
18 investment in an existing building that is not a major ren-  
19 ovation but involves replacement of installed equipment,  
20 such as heating and cooling systems, or involves renova-  
21 tion, rehabilitation, expansion, or remodeling of existing  
22 space, employs the most energy efficient designs, systems,  
23 equipment, and controls that are life-cycle cost effective.  
24 Not later than 6 months after the date of enactment of  
25 the Carbon-Neutral Government Act of 2007, each Fed-

1 eral agency shall develop a process for reviewing each such  
2 large capital energy investment decision to ensure that the  
3 requirement of this subsection is met, and shall report to  
4 the Office of Management and Budget on the process es-  
5 tablished. Not later than one year after the date of enact-  
6 ment of the Carbon-Neutral Government Act of 2007, the  
7 Office of Management and Budget shall evaluate and re-  
8 port to Congress on each agency’s compliance with this  
9 subsection.”.

10 (b) **METERING.**—Section 543(e)(1) of the National  
11 Energy Conservation Policy Act (42 U.S.C. 8253(e)(1))  
12 is amended by inserting “By October 1, 2016, each agency  
13 shall also provide for equivalent metering of natural gas,  
14 steam, chilled water, and water, in accordance with guide-  
15 lines established by the Secretary under paragraph (2).”  
16 after “buildings of the agency.”.

17 **SEC. 6206. LEASING.**

18 (a) **IN GENERAL.**—Except as provided in subsection  
19 (b), effective 3 years after the date of enactment of this  
20 Act, no Federal agency shall enter into a new contract  
21 to lease space in a building that has not earned the Energy  
22 Star label in the most recent year.

23 (b) **EXCEPTION.**—If—

1           (1) no space is available in such a building that  
2           meets an agency's functional requirements, including  
3           locational needs;

4           (2) the agency is proposing to remain in a  
5           building that the agency has occupied previously;

6           (3) the agency is proposing to lease a building  
7           of historical, architectural, or cultural significance,  
8           as defined in section 3306(a)(4) of title 40, United  
9           States Code, or space in such a building; or

10          (4) the lease is for no more than 10,000 gross  
11          square feet of space,

12 the agency may enter into a contract to lease space in  
13 a building that has not earned the Energy Star label in  
14 the most recent year if the lease contract includes provi-  
15 sions requiring that, prior to occupancy, or in the case  
16 of a contract described in paragraph (2) not later than  
17 6 months after signing the contract, the space will be ren-  
18 ovated for all energy efficiency improvements that would  
19 be cost effective over the life of the lease, including im-  
20 provements in lighting, windows, and heating, ventilation,  
21 and air conditioning systems.

22 **SEC. 6207. PROCUREMENT AND ACQUISITION OF ALTER-**  
23 **NATIVE FUELS.**

24          No Federal agency shall enter into a contract for pro-  
25 curement of an alternative or synthetic fuel, including a

1 fuel produced from non-conventional petroleum sources,  
2 for any mobility-related use, other than for research or  
3 testing, unless the contract specifies that the lifecycle  
4 greenhouse gas emissions associated with the production  
5 and combustion of the fuel supplied under the contract  
6 must, on an ongoing basis, be less than or equal to such  
7 emissions from the equivalent conventional fuel produced  
8 from conventional petroleum sources.

9 **SEC. 6208. CONTRACTS FOR RENEWABLE ENERGY FOR EX-**  
10 **ECUTIVE AGENCIES.**

11 Section 501(b)(1) of title 40, United States Code, is  
12 amended—

13 (1) in subparagraph (B), by striking “A con-  
14 tract” and inserting “Except as provided in subpara-  
15 graph (C), a contract”; and

16 (2) by adding at the end the following new sub-  
17 paragraph:

18 “(C) RENEWABLE ENERGY CONTRACTS.—  
19 A contract for renewable energy may be made  
20 for a period of not more than 30 years. For the  
21 purposes of this subparagraph, the term ‘renew-  
22 able energy’ has the meaning given that term in  
23 section 203(b) of the Energy Policy Act of  
24 2005 (42 U.S.C. 15852(b)(2)), except that en-

1           ergy generated from municipal solid waste shall  
2           not be considered renewable energy.”.

3 **SEC. 6209. GOVERNMENT EFFICIENCY STATUS REPORTS.**

4           (a) IN GENERAL.—Each Federal agency subject to  
5 any of the requirements of this title and the amendments  
6 made by this title shall compile and submit to the Director  
7 of the Office of Management and Budget an annual Gov-  
8 ernment efficiency status report on—

9           (1) compliance by the agency with each of the  
10 requirements of this title and the amendments made  
11 by this title;

12           (2) the status of the implementation by the  
13 agency of initiatives to improve energy efficiency, re-  
14 duce energy costs, and reduce emissions of green-  
15 house gases; and

16           (3) savings to American taxpayers resulting  
17 from mandated improvements under this title and  
18 the amendments made by this title

19           (b) SUBMISSION.—Such report shall be submitted—

20           (1) to the Director at such time as the Director  
21 requires;

22           (2) in electronic, not paper, format; and

23           (3) consistent with related reporting require-  
24 ments.

1 **SEC. 6210. OMB GOVERNMENT EFFICIENCY REPORTS AND**  
2 **SCORECARDS.**

3 (a) REPORTS.—Not later than April 1 of each year,  
4 the Director of the Office of Management and Budget  
5 shall submit an Annual Government Efficiency report to  
6 the Committee on Oversight and Government Reform of  
7 the House of Representatives and the Committee on Gov-  
8 ernmental Affairs of the Senate, which shall contain—

9 (1) a summary of the information reported by  
10 agencies under section 6209;

11 (2) an evaluation of the Government's overall  
12 progress toward achieving the goals of this title and  
13 the amendments made by this title; and

14 (3) recommendations for additional actions nec-  
15 essary to meet the goals of this title and the amend-  
16 ments made by this title.

17 (b) SCORECARDS.—The Office of Management and  
18 Budget shall include in any annual energy scorecard it is  
19 otherwise required to submit a description of each agen-  
20 cy's compliance with the requirements of this title and the  
21 amendments made by this title.

22 **SEC. 6211. AUTHORIZATION OF APPROPRIATIONS.**

23 There are authorized to be appropriated such sums  
24 as may be necessary to implement this subtitle.

1 **SEC. 6212. JUDICIAL REVIEW.**

2 (a) FINAL AGENCY ACTION.—Any nondiscretionary  
3 act or duty under this title or any amendment made by  
4 this title is a final agency action for the purposes of judi-  
5 cial review under chapter 7 of title 5, United States Code.

6 (b) VENUE FOR CERTAIN ACTIONS.—The United  
7 States Court of Appeals for the District of Columbia Cir-  
8 cuit shall have exclusive jurisdiction over any petition for  
9 review of action of the Administrator in promulgating any  
10 rule under subtitle A of this title.

11 (c) LIMITATIONS.—No action under chapter 7 of title  
12 5, United States Code, may be commenced prior to 60  
13 days after the date on which the plaintiff has given notice  
14 to the Federal agency concerned of the alleged violation  
15 of this title or any amendment made by this title.

16 (d) COMMON CLAIMS.—When civil actions arising  
17 under this title or any amendment made by this title are  
18 pending in the same court and involve one or more com-  
19 mon questions of fact or common claims regarding the  
20 same alleged Federal agency failure or failures to act, the  
21 court may consolidate such claims into a single action for  
22 judicial review. When civil actions arising under this title  
23 or any amendment made by this title are pending in dif-  
24 ferent districts and involve one or more common questions  
25 of fact or common claims regarding the same alleged Fed-  
26 eral agency failure or failures to act, such actions may

1 be consolidated pursuant to section 1407 of title 28,  
2 United States Code.

3 (e) AGGRIEVED PERSONS.—A person shall be consid-  
4 ered aggrieved within the meaning of this title or any  
5 amendment made by this title for purposes of obtaining  
6 judicial review under chapter 7 of title 5, United States  
7 Code, if the person alleges—

8 (1) harm attributable to a Federal agency’s  
9 failure to reduce its greenhouse gas emissions in ac-  
10 cordance with the requirements under this title or  
11 any amendment made by this title, or take other ac-  
12 tions required under this title or any amendment  
13 made by this title; or

14 (2) a Federal agency’s failure to collect and  
15 provide information to the public as required by this  
16 title or any amendment made by this title.

17 For purposes of this section, the term “harm” includes  
18 any effect of global warming, currently occurring or at risk  
19 of occurring, and the incremental exacerbation of any such  
20 effect or risk that is associated with relatively small incre-  
21 ments of greenhouse gas emissions, even if the effect or  
22 risk is widely shared. An effect or risk associated with  
23 global warming is “attributable” to a Federal agency’s  
24 failure to act as described in paragraph (1) if the failure  
25 to act results in larger emissions of greenhouse gases than

1 would have been emitted had the Federal agency followed  
2 the requirements of this title or any amendment made by  
3 this title, as any such incremental additional emissions will  
4 exacerbate the pace, extent, and risks of global warming.

5 (f) REMEDY.—

6 (1) IN GENERAL.—In addition to the remedies  
7 available under chapter 7 of title 5, United States  
8 Code, a court may provide the remedies specified in  
9 this subsection.

10 (2) PAYMENT.—In any civil action alleging a  
11 violation of this title, if the court finds that an agen-  
12 cy has significantly violated this title in its failure to  
13 perform any nondiscretionary act or duty under this  
14 title or any amendment made by this title, the court  
15 may award a payment, payable by the United States  
16 Treasury, to be used for a beneficial mitigation  
17 project recommended by the plaintiff or to com-  
18 pensate the plaintiff for any impact from global  
19 warming suffered by the plaintiff. The total payment  
20 for all claims by all plaintiffs in any such action  
21 shall not exceed the amount provided in section  
22 1332(b) of title 28, United States Code. A court  
23 may deny a second payment under this section if the  
24 court determines that the plaintiff has filed multiple  
25 separate actions that could reasonably have been

1 combined into a single action. No payment may be  
2 awarded under this paragraph for violations of an  
3 agency's obligation to collect or report information  
4 to the public. No court may award any payment  
5 under this paragraph in any given year if the cumu-  
6 lative payments awarded by courts under this para-  
7 graph in such year are equal to or greater than  
8 \$1,500,000.

9 (3) COSTS.—A court may award costs of litiga-  
10 tion to any substantially prevailing plaintiff or to  
11 any other plaintiff whenever the court determines  
12 such an award is appropriate. Such an award is ap-  
13 propriate when such litigation contributes to the  
14 Federal agency's compliance with this title or any  
15 amendment made by this title. Costs of litigation in-  
16 clude reasonable attorney fees and expert fees.

17 (4) EXCLUSIVE REMEDY.—Notwithstanding any  
18 other provision of Federal law—

19 (A) no plaintiff who is awarded a payment  
20 under this subsection for a failure to perform a  
21 mandatory duty under this title or any amend-  
22 ment made by this title may be awarded a pay-  
23 ment for such failure under any other Federal  
24 law; and

1           (B) no plaintiff may be awarded a pay-  
2           ment under this subsection for a failure to per-  
3           form a mandatory duty under this title or any  
4           amendment made by this title if the plaintiff  
5           has been awarded a payment for such failure  
6           under any other Federal law.

7           (g) NO STATE COURT ACTION.—No person may  
8           bring any action in State court alleging a violation of this  
9           title or any amendment made by this title.

10          (h) INAPPLICABILITY TO PROCUREMENT PRO-  
11          TESTS.—No action may be commenced under this section  
12          objecting to a solicitation by a Federal agency for bids  
13          or proposals for a proposed contract or to a proposed  
14          award or the award of a contract or any alleged violation  
15          of statute or regulation in connection with a procurement  
16          or a proposed procurement if such action may be brought  
17          by an interested party under section 1491(b)(1) of title  
18          28, United States Code, or subchapter V of title 31,  
19          United States Code.

20          (i) DEFINITION.—In this section, the term “person”  
21          means a United States person. In the case of an indi-  
22          vidual, such term means a citizen or national of the United  
23          States.

1 **TITLE VII—NATURAL RE-**  
2 **SOURCES COMMITTEE PROVI-**  
3 **SIONS**

4 **SEC. 7001. SHORT TITLE.**

5 This title may be cited as the “Energy Policy Reform  
6 and Revitalization Act of 2007”.

7 **Subtitle A—Energy Policy Act of**  
8 **2005 Reforms**

9 **SEC. 7101. FISCALLY RESPONSIBLE ENERGY AMENDMENTS.**

10 (a) **REQUIREMENT TO ESTABLISH COST RECOVERY**  
11 **FEE.**—Section 365(i) of the Energy Policy Act of 2005  
12 (Public Law 109–58; 42 U.S.C. 15924(i)) is amended to  
13 read as follows:

14 “(i) **FEE FOR APPLICATIONS FOR PERMITS TO**  
15 **DRILL.**—

16 “(1) **REQUIREMENT TO ESTABLISH COST RE-**  
17 **COVERY FEE.**—The Secretary of the Interior shall  
18 promulgate regulations to establish a cost recovery  
19 fee for applications for a permit to drill for oil and  
20 gas on Federal lands administered by the Secretary.

21 “(2) **TEMPORARY FEE.**—Until such time as a  
22 fee is established by such regulations, the Secretary  
23 shall charge a cost recovery fee of \$1,700 for each  
24 such application received on or after October 1,  
25 2007.



1 **SEC. 7103. OIL SHALE AND TAR SANDS LEASING.**

2 Section 369 of the Energy Policy Act of 2005 (42  
3 U.S.C. 15927) is amended—

4 (1) in subsection (c), by striking “not later than  
5 180 days after the date of enactment of this Act,”;

6 (2) in subsection (c), by striking “shall make”  
7 and inserting “may make”;

8 (3) in subsection (d)(1), by striking “Not later  
9 than 18 months after the date of enactment of this  
10 Act, in” and inserting “In”;

11 (4) in subsection (d)(2)—

12 (A) in the heading by striking “FINAL”  
13 and inserting “PROPOSED”; and

14 (B) in the text by striking “final” and in-  
15 serting “proposed”;

16 (5) in subsection (d)(2), by striking “6” and in-  
17 serting “12”;

18 (6) in subsection (d)(2) by inserting after the  
19 period “The proposed regulations developed under  
20 this paragraph are to be open for public comment  
21 for no less than 120 days.”;

22 (7) by redesignating subsections (e) through (s)  
23 as subsections (g) through (u), and by inserting  
24 after subsection (d) the following:

25 “(e) OIL SHALE AND TAR SANDS LEASING AND DE-  
26 VELOPMENT STRATEGY.—

1           “(1) GENERAL.—Not later than 6 months after  
2 the completion of the programmatic environmental  
3 impact statement under subsection (d), the Sec-  
4 retary shall prepare an oil shale and tar sands leas-  
5 ing and development strategy, in cooperation with  
6 the Secretary of Energy and the Administrator of  
7 the Environmental Protection Agency.

8           “(2) PURPOSE.—The purpose of the strategy  
9 developed under this subsection is to provide a  
10 framework for regulations that will allow for the sus-  
11 tainable and publicly acceptable large-scale develop-  
12 ment of oil shale within the Green River Formation  
13 and to provide a basis for decisions regarding Fed-  
14 eral support for research and other activities to  
15 achieve that result.

16           “(3) CONTENTS.—The strategy shall include  
17 plans and programs for obtaining information re-  
18 quired for determining the optimal methods, loca-  
19 tions, amount, and timeframe for potential develop-  
20 ment on Federal lands within the Green River For-  
21 mation. The strategy shall also include plans for  
22 conducting critical environmental and ecological re-  
23 search, high-payoff process improvement research,  
24 an assessment of carbon management options, and a

1 large-scale demonstration of carbon dioxide seques-  
2 tration in the general vicinity of the Piceance Basin.

3 “(f) ALTERNATIVE APPROACHES.—In developing the  
4 strategy under subsection (e), the Secretary shall, in co-  
5 operation with the Secretary of Energy and the Adminis-  
6 trator of the Environmental Protection Agency, consult  
7 with industry and other interested persons regarding al-  
8 ternative approaches to providing access to Federal lands  
9 for early first-of-a-kind commercial facilities for extracting  
10 and processing oil shale and tar sands.”;

11 (8) in subsection (g), as so redesignated, by  
12 striking “of the final regulation required by sub-  
13 section (d)” and inserting “of final regulations  
14 issued under this section”;

15 (9) in subsection (g), as so redesignated, by  
16 adding at the end the following: “Compliance with  
17 the National Environmental Policy Act of 1969 is  
18 required on a site-by-site basis for all lands proposed  
19 to be leased under the commercial leasing program  
20 established in this subsection.”; and

21 (10) in subsection (i)(1)(B), as so redesignated,  
22 by striking “subsection (e)” and inserting “sub-  
23 section (g)”.

1 **SEC. 7104. LIMITATION OF REBUTTABLE PRESUMPTION RE-**  
2 **GARDING APPLICATION OF CATEGORICAL**  
3 **EXCLUSION UNDER NEPA FOR OIL AND GAS**  
4 **EXPLORATION AND DEVELOPMENT ACTIVI-**  
5 **TIES.**

6 Section 390 of the Energy Policy Act of 2005 (Public  
7 Law 109–58; 42 U.S.C. 15942) is amended by adding at  
8 the end the following:

9 “(c) ADHERENCE TO CEQ REGULATIONS.—In ad-  
10 ministering this section, the Secretary of the Interior in  
11 managing the public lands, and the Secretary of Agri-  
12 culture in managing National Forest System lands, shall  
13 adhere to the regulations issued by the Council on Envi-  
14 ronmental Quality relating to categorical exclusions (40  
15 C.F.R. 1507.3 and 1508.4), as in effect on the date of  
16 enactment of this Act.”.

17 **SEC. 7105. BEST MANAGEMENT PRACTICES.**

18 Not later than 180 days after the date of enactment  
19 of this Act, the Secretary of the Interior, through the Bu-  
20 reau of Land Management, shall amend the best manage-  
21 ment practices guidelines for oil and gas development on  
22 Federal lands, to—

23 (1) require public review and comment prior to  
24 waiving any stipulation of an oil and gas lease for  
25 such lands, except in the case of an emergency; and

1           (2) create an incentive for oil and gas operators  
2           to adopt best management practices that minimize  
3           adverse impacts to wildlife habitat, by providing ex-  
4           pedited permit review for any operator that commits  
5           to adhering to those practices without seeking waiver  
6           of such stipulations.

7 **SEC. 7106. FEDERAL CONSISTENCY APPEALS.**

8           (a) **SHORT TITLE.**—This section may be cited as the  
9           “Federal Consistency Appeals Decision Refinement Act”.

10          (b) **CLARIFICATION OF APPEAL DECISION TIME PE-**  
11 **RIODS AND INFORMATION REQUIREMENTS.**—Section  
12 319(b) of the Coastal Zone Management Act of 1972 (16  
13 U.S.C. 1465(b)) is amended—

14           (1) in paragraph (1), by striking “160-day”  
15           and inserting “200-day”;

16           (2) in paragraph (3)(A)—

17                 (A) by striking “160-day” and inserting  
18                 “200-day”; and

19                 (B) by amending clause (ii) to read as fol-  
20                 lows:

21                         “(ii) as the Secretary determines nec-  
22                         essary to receive, on an expedited basis,  
23                         any supplemental or clarifying information  
24                         relevant to the consolidated record com-  
25                         piled by the lead Federal permitting agen-

1                   cy to complete a consistency review under  
2                   this title.”; and  
3                   (3) in paragraph (3)(B) by striking “160-day”  
4                   and inserting “200-day”.

5 **Subtitle B—Federal Energy Public**  
6 **Accountability, Integrity, and**  
7 **Public Interest**

8 **CHAPTER 1—ACCOUNTABILITY AND IN-**  
9 **TEGRITY IN THE FEDERAL ENERGY**  
10 **PROGRAM**

11 **SEC. 7201. AUDITS.**

12           (a) **REQUIREMENT TO INCREASE THE NUMBER OF**  
13 **AUDITS.**—The Secretary of the Interior shall ensure that  
14 by fiscal year 2009 the Minerals Management Service  
15 shall perform no less than 550 audits of oil and gas leases  
16 each fiscal year.

17           (b) **STANDARDS.**—Not later than 120 days after the  
18 date of enactment of this Act, the Secretary of the Interior  
19 shall issue regulations that require that all employees that  
20 conduct audits or compliance reviews must meet profes-  
21 sional auditor qualifications that are consistent with the  
22 latest revision of the Government Auditing Standards pub-  
23 lished by the Government Accountability Office. Such reg-  
24 ulations shall also ensure that all audits conducted by the

1 Department of the Interior are performed in accordance  
2 with such standards.

3 **SEC. 7202. FINES AND PENALTIES.**

4 (a) SANCTIONS FOR VIOLATIONS RELATING TO FED-  
5 ERAL OIL AND GAS ROYALTIES.—Section 109 of the Fed-  
6 eral Oil and Gas Royalty Management Act of 1982 (30  
7 U.S.C. 1719) is amended to read as follows:

8 “CIVIL PENALTIES

9 “SEC. 109. (a) ROYALTY VIOLATIONS.—(1) No per-  
10 son shall—

11 “(A) after due notice of violation or after such  
12 violation has been reported under paragraph (3)(A),  
13 fail or refuse to comply with any requirement of any  
14 mineral leasing law or any regulation, order, lease,  
15 or permit under such a law;

16 “(B) fail or refuse to make any royalty pay-  
17 ment in the amount or value required by any min-  
18 eral leasing law or any regulation, order, or lease  
19 under such a law, with the intent to defraud;

20 “(C) fail or refuse to make any royalty payment  
21 by the date required by any mineral leasing law or  
22 any regulation, order, or lease under such a law,  
23 with the intent to defraud; or

24 “(D) prepare, maintain, or submit any false, in-  
25 accurate, or misleading report, notice, affidavit,  
26 record, data, or other written information or filing

1 related to royalty payments that is required under  
2 any mineral leasing law or regulation issued under  
3 any mineral leasing law, with the intent to defraud.

4 “(2) A person who violates paragraph (1) shall be lia-  
5 ble—

6 “(A) in the case of a violation of subparagraph  
7 (B) or (C) of paragraph (1) for an amount equal to  
8 3 times the royalty the person fails or refuses to  
9 pay, plus interest on that trebled amount measured  
10 from the first date the royalty payment was due;  
11 and

12 “(B) in the case of any violation, for a civil  
13 penalty of—

14 “(i) except as provided in clause (ii), up to  
15 \$25,000 per violation for each day the violation  
16 continues; or

17 “(ii) if the person failed or refused to  
18 make a payment of royalty owed in an amount  
19 less than \$25,000, an amount equal to 150 per-  
20 cent of the royalty owed that was not paid;

21 “(3) Paragraph (2) shall not apply to a violation of  
22 paragraph (1) if the person who commits the violation,  
23 within 30 days of knowing of the violation—

24 “(A) reports the violation to the Secretary or a  
25 representative designated by the Secretary; and

1 “(B) corrects the violation.

2 “(b) LEASE ADMINISTRATION VIOLATIONS.—Any  
3 person who—

4 “(1) fails to notify the Secretary of—

5 “(A) any designation by the person under  
6 section 102(a); or

7 “(B) any other assignment of obligations  
8 or responsibilities of the person under a lease;

9 “(2) fails or refuses to permit—

10 “(A) lawful entry;

11 “(B) inspection, including any inspection  
12 authorized by section 108; or

13 “(C) audit, including any failure or refusal  
14 to promptly tender requested documents;

15 “(3) fails or refuses to comply with subsection  
16 102(b)(3) (relating to notification regarding begin-  
17 ning or resumption of production); or

18 “(4) fails to correctly report and timely provide  
19 operations or financial records necessary for the Sec-  
20 retary or any authorized designee of the Secretary to  
21 accomplish lease management responsibilities,

22 shall be liable for a penalty of up to \$10,000 per violation  
23 for each day such violation continues.

24 “(c) THEFT.—Any person who—

1           “(1) knowingly or willfully takes or removes,  
2           transports, uses or diverts any oil or gas from any  
3           lease site without having valid legal authority to do  
4           so; or

5           “(2) purchases, accepts, sells, transports, or  
6           conveys to another, any oil or gas knowing or having  
7           reason to know that such oil or gas was stolen or  
8           unlawfully removed or diverted,

9 shall be liable for a penalty of up to \$25,000 per violation  
10 for each day such violation continues without correction.

11           “(d) ADMINISTRATIVE APPEAL.—(1) Any determina-  
12 tion by the Secretary or a designee of the Secretary of  
13 the amount of any royalties or civil penalties owed under  
14 subsection (a), (b), or (c) shall be final, unless within 120  
15 days after notification by the Secretary or designee the  
16 person liable for such amount files an administrative ap-  
17 peal in accordance with regulations issued by the Sec-  
18 retary.

19           “(2) If a person files an administrative appeal pursu-  
20 ant to paragraph (1), the Secretary or designee shall make  
21 a final determination in accordance with the regulations  
22 referred to in paragraph (1).

23           “(e) DEDUCTION.—The amount of any penalty under  
24 this section, as finally determined may be deducted from

1 any sums owing by the United States to the person  
2 charged.

3 “(f) COMPROMISE AND REDUCTION.—On a case-by-  
4 case basis the Secretary may compromise or reduce civil  
5 penalties under this section.

6 “(g) NOTICE.—Notice under this subsection (a) shall  
7 be by personal service by an authorized representative of  
8 the Secretary or by registered mail. Any person may, in  
9 the manner prescribed by the Secretary, designate a rep-  
10 resentative to receive any notice under this subsection.

11 “(h) RECORD OF DETERMINATION.—In determining  
12 the amount of such penalty, or whether it should be remit-  
13 ted or reduced, and in what amount, the Secretary shall  
14 state on the record the reasons for his determinations.

15 “(i) JUDICIAL REVIEW.—Any person who has re-  
16 quested a hearing in accordance with subsection (e) within  
17 the time the Secretary has prescribed for such a hearing  
18 and who is aggrieved by a final order of the Secretary  
19 under this section may seek review of such order in the  
20 United States district court for the judicial district in  
21 which the violation allegedly took place. Review by the dis-  
22 trict court shall be de novo. Such an action shall be barred  
23 unless filed within 90 days after the Secretary’s final  
24 order.

1       “(j) FAILURE TO PAY.—If any person fails to pay  
2 an assessment of a civil penalty under this Act—

3               “(1) after the order making the assessment has  
4 become a final order and if such person does not file  
5 a petition for judicial review of the order in accord-  
6 ance with subsection (j), or

7               “(2) after a court in an action brought under  
8 subsection (j) has entered a final judgment in favor  
9 of the Secretary,

10 the court shall have jurisdiction to award the amount as-  
11 sessed plus interest from the date of the expiration of the  
12 90-day period referred to in subsection (j). Judgment by  
13 the court shall include an order to pay.

14       “(k) RELATIONSHIP TO MINERAL LEASING ACT.—  
15 No person shall be liable for a civil penalty under sub-  
16 section (a) or (b) for failure to pay any rental for any  
17 lease automatically terminated pursuant to section 31 of  
18 the Mineral Leasing Act.

19       “(l) TOLLING OF STATUTES OF LIMITATION.—(1)  
20 Any determination by the Secretary or a designee of the  
21 Secretary that a person has violated subsection (a), (b)(2),  
22 or (b)(4) shall toll any applicable statute of limitations for  
23 all oil and gas leases held or operated by such person, until  
24 the later of—

1           “(A) the date on which the person corrects the  
2 violation and certifies that all violations of a like na-  
3 ture have been corrected for all of the oil and gas  
4 leases held or operated by such person; or

5           “(B) the date a final, nonappealable order has  
6 been issued by the Secretary or a court of competent  
7 jurisdiction.

8           “(2) A person determined by the Secretary or a des-  
9 ignee of the Secretary to have violated subsection (a),  
10 (b)(2), or (b)(4) shall maintain all records with respect  
11 to the person’s oil and gas leases until the later of—

12           “(A) the date the Secretary releases the person  
13 from the obligation to maintain such records; and

14           “(B) the expiration of the period during which  
15 the records must be maintained under section  
16 103(b).

17           “(m) STATE SHARING OF PENALTIES.—Amounts re-  
18 ceived by the United States in an action brought under  
19 section 3730 of title 31, United States Code, that arises  
20 from any underpayment of royalties owed to the United  
21 States under any lease shall be treated as royalties paid  
22 to the United States under that lease for purposes of the  
23 mineral leasing laws and the Land and Water Conserva-  
24 tion Fund Act of 1965 (16 U.S.C. 4601–4 et seq.).”.

1 (b) SHARED CIVIL PENALTIES.—Section 206 of the  
2 Federal Oil and Gas Royalty Management Act of 1982  
3 (30 U.S.C. 1736) is amended—

4 (1) by inserting “trebled royalties or” after “50  
5 per centum of any”; and

6 (2) by striking the second sentence.

7 **CHAPTER 2—AMENDMENTS TO FEDERAL**  
8 **OIL AND GAS ROYALTY MANAGEMENT**  
9 **ACT OF 1982**

10 **SEC. 7211. AMENDMENTS TO DEFINITIONS.**

11 Section 3 of the Federal Oil and Gas Royalty Man-  
12 agement Act of 1982 (30 U.S.C. 1702) is amended—

13 (1) in paragraph (20)(A), by striking “: *Pro-*  
14 *vided, That*” and all that follows through “subject of  
15 the judicial proceeding”;

16 (2) in paragraph (20)(B), by striking “(with  
17 written notice to the lessee who designated the des-  
18 ignee)”;

19 (3) in paragraph (23)(A), by striking “(with  
20 written notice to the lessee who designated the des-  
21 ignee)” ;

22 (4) by amending paragraph (24) to read as fol-  
23 lows:

24 “(24) ‘designee’ means any person who pays,  
25 offsets, or credits monies, makes adjustments, re-

1       quests and receives refunds, or submits reports with  
2       respect to payments a lessee must make pursuant to  
3       section 102(a);”;

4             (5) in paragraph (25)(B), by striking “(subject  
5       to the provisions of section 102(a) of this Act)”;

6             (6) in paragraph (26), by striking “(with notice  
7       to the lessee who designated the designee)”.

8       **SEC. 7212. INTEREST.**

9             (a) ESTIMATED PAYMENTS; INTEREST ON AMOUNT  
10       OF UNDERPAYMENT.—Section 111(j) of the Federal Oil  
11       and Gas Royalty Management Act of 1982 (30 U.S.C.  
12       1721(j)) is amended by striking “If the estimated pay-  
13       ment exceeds the actual royalties due, interest is owed on  
14       the overpayment.”.

15            (b) OVERPAYMENTS.—Section 111 of the Federal Oil  
16       and Gas Royalty Management Act of 1982 (30 U.S.C.  
17       1721) is amended by striking subsections (h) and (i).

18            (c) EFFECTIVE DATE.—The amendments made by  
19       this section shall be effective one year after the date of  
20       enactment of this Act.

21       **SEC. 7213. OBLIGATION PERIOD.**

22            Section 115(c) of the Federal Oil and Gas Royalty  
23       Management Act of 1982 (30 U.S.C. 1724(c)) is amended  
24       by adding at the end the following:

1           “(3) ADJUSTMENTS.—In the case of an adjust-  
2           ment under section 111A(a) (30 U.S.C. 1721a(a)) in  
3           which a recoupment by the lessee results in an un-  
4           derpayment of an obligation, for purposes of this Act  
5           the obligation becomes due on the date the lessee or  
6           its designee makes the adjustment.”.

7   **SEC. 7214. TOLLING AGREEMENTS AND SUBPOENAS.**

8           (a) TOLLING AGREEMENTS.—Section 115(d)(1) of  
9           the Federal Oil and Gas Royalty Management Act of 1982  
10          (30 U.S.C. 1724(d)(1)) is amended by striking “(with no-  
11          tice to the lessee who designated the designee)”.

12          (b) SUBPOENAS.—Section 115(d)(2)(A) of the Fed-  
13          eral Oil and Gas Royalty Management Act of 1982 (30  
14          U.S.C. 1724(d)(2)(A)) is amended by striking “(with no-  
15          tice to the lessee who designated the designee, which notice  
16          shall not constitute a subpoena to the lessee)”.

17   **SEC. 7215. LIABILITY FOR ROYALTY PAYMENTS.**

18          Section 102(a) of the Federal Oil and Gas Royalty  
19          Management Act of 1982 (30 U.S.C. 1712(a)) is amended  
20          to read as follows:

21          “(a) In order to increase receipts and achieve effec-  
22          tive collections of royalty and other payments, a lessee who  
23          is required to make any royalty or other payment under  
24          a lease or under the mineral leasing laws, shall make such  
25          payments in the time and manner as may be specified by

1 the Secretary or the applicable delegated State. Any per-  
2 son who pays, offsets or credits monies, makes adjust-  
3 ments, requests and receives refunds, or submits reports  
4 with respect to payments the lessee must make is the les-  
5 see's designee under this Act. Notwithstanding any other  
6 provision of this Act to the contrary, a designee shall be  
7 liable for any payment obligation of any lessee on whose  
8 behalf the designee pays royalty under the lease. The per-  
9 son owning operating rights in a lease and a person own-  
10 ing legal record title in a lease shall be liable for that per-  
11 son's pro rata share of payment obligations under the  
12 lease.”.

13 **CHAPTER 3—PUBLIC INTEREST IN THE**  
14 **FEDERAL ENERGY PROGRAM**

15 **SEC. 7221. SURFACE OWNER PROTECTION.**

16 (a) DEFINITIONS.—As used in this section—

17 (1) the term “Secretary” means the Secretary  
18 of the Interior;

19 (2) the term “lease” means a lease issued by  
20 the Secretary under the Mineral Leasing Act (30  
21 U.S.C. 181 et seq.);

22 (3) the term “lessee” means the holder of a  
23 lease; and

24 (4) the term “operator” means any person that  
25 is responsible under the terms and conditions of a

1 lease for the operations conducted on leased lands or  
2 any portion thereof.

3 (b) POST-LEASE SURFACE USE AGREEMENT.—

4 (1) IN GENERAL.—Except as provided in sub-  
5 section (c), the Secretary may not authorize any op-  
6 erator to conduct exploration and drilling operations  
7 on lands with respect to which title to oil and gas  
8 resources is held by the United States but title to  
9 the surface estate is not held by the United States,  
10 until the operator has filed with the Secretary a doc-  
11 ument, signed by the operator and the surface owner  
12 or owners, showing that the operator has secured a  
13 written surface use agreement between the operator  
14 and the surface owner or owners that meets the re-  
15 quirements of paragraph (2).

16 (2) CONTENTS.—The surface use agreement  
17 shall provide for—

18 (A) the use of only such portion of the sur-  
19 face estate as is reasonably necessary for explo-  
20 ration and drilling operations based on site-spe-  
21 cific conditions;

22 (B) the accommodation of the surface es-  
23 tate owner to the maximum extent practicable,  
24 including the location, use, timing, and type of  
25 exploration and drilling operations, consistent

1 with the operator's right to develop the oil and  
2 gas estate;

3 (C) the reclamation of the site to a condi-  
4 tion capable of supporting the uses which such  
5 lands were capable of supporting prior to explo-  
6 ration and drilling operations or other uses as  
7 agreed to by the operator and the surface  
8 owner; and

9 (D) compensation for damages as a result  
10 of exploration and drilling operations, including  
11 but not limited to—

12 (i) loss of income and increased costs  
13 incurred;

14 (ii) damage to or destruction of per-  
15 sonal property, including crops, forage, and  
16 livestock; and

17 (iii) failure to reclaim the site in ac-  
18 cordance with this subparagraph (C).

19 (3) PROCEDURE.—

20 (A) IN GENERAL.—An operator shall no-  
21 tify the surface estate owner or owners of the  
22 operator's desire to conclude an agreement  
23 under this section. If the surface estate owner  
24 and the operator do not reach an agreement  
25 within 90 days after the operator has provided

1 such notice, the matter shall be referred to  
2 third party arbitration for resolution within a  
3 period of 90 days. The cost of such arbitration  
4 shall be the responsibility of the operator.

5 (B) IDENTIFICATION OF ARBITERS.—The  
6 Secretary shall identify persons with experience  
7 in conducting arbitrations and shall make this  
8 information available to operators and surface  
9 owners.

10 (C) REFERRAL TO IDENTIFIED ARBI-  
11 TER.—Referral of a matter for arbitration by a  
12 person identified by the Secretary pursuant to  
13 subparagraph (B) shall be sufficient to con-  
14 stitute compliance with subparagraph (A).

15 (4) ATTORNEYS FEES.—If action is taken to  
16 enforce or interpret any of the terms and conditions  
17 contained in a surface use agreement, the prevailing  
18 party shall be reimbursed by the other party for rea-  
19 sonable attorneys fees and actual costs incurred, in  
20 addition to any other relief which a court or arbitra-  
21 tion panel may grant.

22 (c) AUTHORIZED EXPLORATION AND DRILLING OP-  
23 ERATIONS.—

24 (1) AUTHORIZATION WITHOUT SURFACE USE  
25 AGREEMENT.—The Secretary may authorize an op-

1 erator to conduct exploration and drilling operations  
2 on lands covered by subsection (b) in the absence of  
3 an agreement with the surface estate owner or own-  
4 ers, if—

5 (A) the Secretary makes a determination  
6 in writing that the operator made a good faith  
7 attempt to conclude such an agreement, includ-  
8 ing referral of the matter to arbitration pursu-  
9 ant to subsection (b)(3), but that no agreement  
10 was concluded within 90 days after the referral  
11 to arbitration;

12 (B) the operator submits a plan of oper-  
13 ations that provides for the matters specified in  
14 subsection (b)(2) and for compliance with all  
15 other applicable requirements of Federal and  
16 State law; and

17 (C) the operator posts a bond or other fi-  
18 nancial assurance in an amount the Secretary  
19 determines to be adequate to ensure compensa-  
20 tion to the surface estate owner for any dam-  
21 ages to the site, in the form of a surety bond,  
22 trust fund, letter of credit, government security,  
23 certificate of deposit, cash, or equivalent.

1           (2) SURFACE OWNER PARTICIPATION.—The  
2 Secretary shall provide surface estate owners with  
3 an opportunity to—

4           (A) comment on plans of operations in ad-  
5 vance of a determination of compliance with  
6 this section;

7           (B) participate in bond level determina-  
8 tions and bond release proceedings under this  
9 subsection;

10          (C) attend an on-site inspection during  
11 such determinations and proceedings;

12          (D) file written objections to a proposed  
13 bond release; and

14          (E) request and participate in an on-site  
15 inspection when they have reason to believe  
16 there is a violation of the terms and conditions  
17 of a plan of operations.

18           (3) PAYMENT OF FINANCIAL GUARANTEE.—A  
19 surface estate owner with respect to any land subject  
20 to a lease may petition the Secretary for payment of  
21 all or any portion of a bond or other financial assur-  
22 ance required under this subsection as compensation  
23 for any damages as a result of exploration and drill-  
24 ing operations. Pursuant to such a petition, the Sec-  
25 retary may use such bond or other guarantee to pro-

1       vide compensation to the surface estate owner for  
2       such damages.

3           (4) BOND RELEASE.—Upon request and after  
4       inspection and opportunity for surface estate owner  
5       review, the Secretary may release the financial as-  
6       surance required under this subsection if the Sec-  
7       retary determines that exploration and drilling oper-  
8       ations have ended and all damages have been fully  
9       compensated.

10       (d) SURFACE OWNER NOTIFICATION.—The Sec-  
11      retary shall—

12           (1) notify surface estate owners in writing at  
13       least 45 days in advance of lease sales;

14           (2) within ten working days after a lease is  
15       issued, notify surface estate owners regarding the  
16       identity of the lessee;

17           (3) notify surface estate owners in writing with-  
18       in 10 working days concerning any subsequent deci-  
19       sions regarding a lease, such as modifying or  
20       waiving stipulations and approving rights-of-way;  
21       and

22           (4) notify surface estate owners within five  
23       business days after issuance of a drilling permit  
24       under a lease.

1 (e) REGULATIONS.—The Secretary shall issue regula-  
2 tions implementing this section by not later than 1 year  
3 after the date of the enactment of this Act.

4 (f) RELATIONSHIP TO STATE LAW.—Nothing in this  
5 section preempts applicable State law or regulation relat-  
6 ing to surface owner protection.

7 **SEC. 7222. ONSHORE OIL AND GAS RECLAMATION AND**  
8 **BONDING.**

9 Section 17 of the Mineral Leasing Act (30 U.S.C.  
10 226) is amended by adding at the end the following:

11 “(q) RECLAMATION REQUIREMENTS.—An operator  
12 producing oil or gas (including coalbed methane) under  
13 a lease issued pursuant to this Act shall—

14 “(1) at a minimum restore the land affected to  
15 a condition capable of supporting the uses that it  
16 was capable of supporting prior to any drilling, or  
17 higher or better uses of which there is reasonable  
18 likelihood, so long as such use or uses do not present  
19 any actual or probable hazard to public health or  
20 safety or pose any actual or probable threat of water  
21 diminution or pollution, and the permit applicants’  
22 declared proposed land use following reclamation is  
23 not impractical or unreasonable, inconsistent with  
24 applicable land use policies and plans, or involve un-

1 reasonable delay in implementation, or is violative of  
2 Federal or State law;

3 “(2) ensure that all reclamation efforts proceed  
4 in an environmentally sound manner and as contem-  
5 poraneously as practicable with the oil and gas drill-  
6 ing operations; and

7 “(3) submit with the plan of operations a rec-  
8 lamation plan that describes in detail the methods  
9 and practices that will be used to ensure complete  
10 and timely restoration of all lands affected by oil  
11 and gas operations.

12 “(r) RECLAMATION BOND OR OTHER FINANCIAL AS-  
13 SURANCES.—An operator producing oil or gas (including  
14 coalbed methane) under a lease issued under this Act shall  
15 post a bond or other financial assurances that cover the  
16 reclamation of that area of land within the permit area  
17 upon which the operator will initiate and conduct oil and  
18 gas drilling and reclamation operations within the initial  
19 term of the permit. As succeeding increments of oil and  
20 gas drilling and reclamation operations are to be initiated  
21 and conducted within the permit area, the lessee shall file  
22 with the regulatory authority an additional bond or bonds  
23 or other financial assurances to cover such increments in  
24 accordance with this section. The amount of the bond or  
25 other financial assurances required for each bonded area

1 shall depend upon the reclamation requirements of the ap-  
2 proved permit; shall reflect the probable difficulty of rec-  
3 lamation giving consideration to such factors as topog-  
4 raphy, geology of the site, hydrology, and revegetation po-  
5 tential; and shall be determined by the Secretary. The  
6 amount of the bond or other financial assurances shall be  
7 sufficient to assure the completion of the reclamation plan  
8 if the work had to be performed by the Secretary in the  
9 event of forfeiture.

10 “(s) REGULATIONS.—No later than one year after  
11 the date of the enactment of this subsection, the Secretary  
12 shall promulgate regulations to implement the require-  
13 ments, including for the release of bonds or other financial  
14 assurances, of subsections (q) and (r).”.

15 **SEC. 7223. PROTECTION OF WATER RESOURCES.**

16 (a) MINERAL LEASING ACT REQUIREMENTS.—Sec-  
17 tion 17 of the Mineral Leasing Act (30 U.S.C. 226) is  
18 further amended by adding at the end the following:

19 “(t) WATER REQUIREMENTS.—

20 “(1) IN GENERAL.—An operator producing oil  
21 or gas (including coalbed methane) under a lease  
22 issued under this Act shall—

23 “(A) remediate or replace the water supply  
24 of a water user who obtains all or part of such  
25 user’s supply of water for domestic, agricul-

1 tural, or other purposes from an underground  
2 or surface source that has been affected by con-  
3 tamination, diminution, or interruption proximi-  
4 tely resulting from drilling operations for  
5 such production; and

6 “(B) comply with all applicable require-  
7 ments of Federal and State law for discharge of  
8 any water produced under the lease.

9 “(2) WATER MANAGEMENT PLAN.—An applica-  
10 tion for a permit to drill submitted pursuant to a  
11 lease issued under this Act shall be accompanied by  
12 a proposed water management plan including provi-  
13 sions to—

14 “(A) protect the quantity and quality of  
15 surface and ground water systems, both on-site  
16 and off-site, from adverse effects of the explo-  
17 ration, development, and reclamation processes  
18 or to provide alternative sources of water if  
19 such protection cannot be assured;

20 “(B) protect the rights of present users of  
21 water that would be affected by operations  
22 under the lease, including the discharge of any  
23 water produced in connection with such oper-  
24 ations that is not reinjected; and

1           “(C) identify any agreements with other  
2           parties for the beneficial use of produced waters  
3           and the steps that will be taken to comply with  
4           State and Federal laws related to such use.”.

5           (b) RELATION TO STATE LAW.—Nothing in this  
6 chapter or any amendment made by this chapter shall—

7           (1) be construed as impairing or in any manner  
8           affecting any right or jurisdiction of any State with  
9           respect to the waters of such State; or

10          (2) be construed as limiting, altering, modi-  
11          fying, or amending any of the interstate compacts or  
12          equitable apportionment decrees that apportion  
13          water among and between States.

14          (c) REGULATIONS.—No later than one year after the  
15 date of the enactment of this Act, the Secretary of the  
16 Interior shall promulgate regulations to implement this  
17 section.

18          (d) INTENT OF CONGRESS.—Nothing in this section  
19 shall be construed to be intended by Congress as a prece-  
20 dent for oil and gas management on State or privately  
21 owned land.

22 **SEC. 7224. DUE DILIGENCE FEE.**

23          (a) ESTABLISHMENT.—The Secretary of the Interior  
24 shall, within 180 days after the date of enactment of this  
25 Act, issue regulations to establish a fee with respect to

1 Federal onshore lands that are subject to a lease for pro-  
2 duction of oil, natural gas, or coal under which production  
3 is not occurring. Such fee shall apply with respect to lands  
4 that are subject to such a lease that is in effect on the  
5 date final regulations are promulgated under this sub-  
6 section or that is issued thereafter.

7 (b) AMOUNT.—The amount of the fee shall be \$1 per  
8 year for each acre of land that is not in production for  
9 that year.

10 (c) ASSESSMENT AND COLLECTION.—The Secretary  
11 shall assess and collect the fee established under this sec-  
12 tion.

13 (d) DEPOSIT AND USE.—Amounts received by the  
14 United States in the form of the fee established under this  
15 section shall be available to the Secretary of the Interior  
16 for use to repair damage to Federal lands and resources  
17 caused by oil and gas development, in accordance with the  
18 the documents submitted by the President with the budget  
19 submission for fiscal year 2008 relating to the Healthy  
20 Lands Initiative. Amounts received by the United States  
21 as fees under this section shall be treated as offsetting  
22 receipts.

1                   **CHAPTER 4—WIND ENERGY**

2   **SEC. 7231. WIND TURBINE GUIDELINES ADVISORY COM-**  
3                   **MITTEE.**

4           (a) IN GENERAL.—The Secretary of the Interior,  
5 within 30 days after the date of enactment of this Act,  
6 shall convene or utilize an existing Wind Turbine Guide-  
7 lines Advisory Committee to study and make recommenda-  
8 tions to the Secretary on guidance for avoiding or mini-  
9 mizing impacts to wildlife and their habitats related to  
10 land-based wind energy facilities. The matters assessed by  
11 the Committee shall include the following:

12                   (1) The Service Interim Guidance on Avoiding  
13                   and Minimizing Wildlife Impacts from Wind Tur-  
14                   bines of 2003.

15                   (2) Balancing potential impacts to wildlife with  
16                   requirements for acquiring the information necessary  
17                   to assess those impacts prior to selecting sites and  
18                   designing facilities.

19                   (3) The scientific tools and procedures best able  
20                   to assess pre-development risk or benefits provided  
21                   to wildlife, measure post-development mortality, as-  
22                   sess behavioral modification, and provide compen-  
23                   satory mitigation for unavoidable impacts.

24                   (4) A process for coordinating State, tribal,  
25                   local, and national review and evaluation of the im-

1       pacts to wildlife from wind energy consistent with  
2       State and Federal laws and international treaties.

3             (5) Determination of project size thresholds or  
4       impacts below which guidelines may not apply.

5             (6) Appropriate timetables for phasing-in guid-  
6       ance.

7             (7) Current State actions to avoid and minimize  
8       wildlife impacts from wind turbines in consultation  
9       with State wildlife agencies.

10       (b) COMMITTEE OPERATIONS.—The Wind Turbine  
11 Guidelines Advisory Committee shall conduct its activities  
12 in accordance with the Federal Advisory Committee Act  
13 (5 U.S.C. App.). The Secretary is authorized to provide  
14 such technical analyses and support as is requested by  
15 such advisory committee.

16       (c) COMMITTEE MEMBERSHIP.—The membership of  
17 the Wind Turbine Guidelines Advisory Committee shall  
18 not exceed 20 members, and shall be appointed by the Sec-  
19 retary of the Interior to achieve balanced representation  
20 of wind energy development, wildlife conservation, and  
21 government. The members shall include representatives  
22 from the United States Fish and Wildlife Service and  
23 other Federal agencies, and representatives from other in-  
24 terested persons, including States, tribes, wind energy de-  
25 velopment organizations, nongovernmental conservation

1 organizations, and local regulatory or licensing commis-  
2 sions.

3 (d) REPORT.—The Wind Turbine Advisory Com-  
4 mittee shall, within 18 months after the date of enactment  
5 of this Act, submit a report to Congress and the Secretary  
6 providing recommended guidance for developing effective  
7 measures to protect wildlife resources and enhance poten-  
8 tial benefits to wildlife that may be identified.

9 (e) ISSUANCE OF GUIDANCE.—Not later than 6  
10 months after receiving the report of the Wind Turbine  
11 Guidelines Advisory Committee under subsection (d), the  
12 Secretary shall following public notice and comment issue  
13 final guidance to avoid and minimize impacts to wildlife  
14 and their habitats related to land-based wind energy facili-  
15 ties. Such guidance shall be based upon the findings and  
16 recommendations made in the report.

17 **SEC. 7232. AUTHORIZATION OF APPROPRIATIONS FOR RE-**  
18 **SEARCH TO STUDY WIND ENERGY IMPACTS**  
19 **ON WILDLIFE.**

20 There is authorized to be appropriated to the Sec-  
21 retary of the Interior \$2,000,000 for each of fiscal years  
22 2008 through 2015 for new and ongoing research efforts  
23 to evaluate methods for minimizing wildlife impacts at  
24 wind energy projects and to explore effective mitigation  
25 methods that may be utilized for that purpose.

1 **SEC. 7233. ENFORCEMENT.**

2 The Secretary shall enforce the Endangered Species  
3 Act of 1973, the Migratory Bird Treaty Act, the Bald  
4 Eagle Protection Act, the Golden Eagle Protection Act,  
5 the Marine Mammal Protection Act of 1973, the National  
6 Environmental Policy Act of 1969, and any other relevant  
7 Federal law to address adverse wildlife impacts related to  
8 wind projects. Nothing in this section preempts State en-  
9 forcement of applicable State laws.

10 **SEC. 7234. SAVINGS CLAUSE.**

11 Nothing in this chapter preempts any provision of  
12 State law or regulation relating to the siting of wind  
13 projects or to consideration or review of any environmental  
14 impacts of wind projects.

15 **CHAPTER 5—ENHANCING ENERGY**  
16 **TRANSMISSION**

17 **SEC. 7241. POWER MARKETING ADMINISTRATIONS REPORT.**

18 (a) ANALYSIS.—The Secretary of Energy, acting  
19 through the Administrator of the Bonneville Area Power  
20 Marketing Administration in consultation with the West-  
21 ern Area Power Marketing Administration, and in coordi-  
22 nation with regional transmission entities, shall conduct,  
23 or participate with such regional transmission entities to  
24 conduct, an analysis of the existing capacity of trans-  
25 mission systems serving the States of California, Oregon,  
26 and Washington to determine whether the existing capac-

1 ity is adequate to accommodate and integrate development  
2 and commercial operation of ocean wave, tidal, and cur-  
3 rent energy projects in State and Federal marine waters  
4 adjacent to those States.

5 (b) REPORT.—Based on the analysis conducted under  
6 subsection (a), the Secretary of Energy shall prepare and  
7 provide to the Natural Resources Committee of the House  
8 of Representatives and the Energy and Natural Resources  
9 Committee of the Senate, not later than one year after  
10 the date of enactment of this Act, a report identifying  
11 changes required, if any, in the capacity of existing trans-  
12 mission systems serving the States referred to in sub-  
13 section (a) in order to reliably and efficiently accommodate  
14 and integrate generation from commercial ocean wave,  
15 tidal, and current energy projects in aggregate, escalating  
16 amounts equal to 2.5, 5, and 10 percent of the current  
17 electrical energy consumption in those States.

18 (c) ACTIVITIES NONREIMBURSABLE.—Activities car-  
19 ried out under subsection (a) or (b) shall be nonreimburs-  
20 able.

21 (d) EXISTING PROCEDURES AND QUEUING NOT AF-  
22 FECTED.—Nothing in this section supercedes existing pro-  
23 cedures and queuing pursuant to the appropriate Open  
24 Access Transmission Tariffs filed by the Administrators

1 of the Bonneville and Western Area Power Administra-  
 2 tions.

3 **Subtitle C—Alternative Energy and**  
 4 **Efficiency**

5 **SEC. 7301. STATE OCEAN AND COASTAL ALTERNATIVE EN-**  
 6 **ERGY PLANNING.**

7 (a) IN GENERAL.—The Coastal Zone Management  
 8 Act of 1972 (16 U.S.C. 1451 et seq.) is amended by in-  
 9 serting after section 306A the following:

10 “OCEAN AND COASTAL ALTERNATIVE ENERGY STATE  
 11 SURVEYS; ALTERNATIVE ENERGY SITE IDENTIFICA-  
 12 TION AND PLANNING

13 “SEC. 306B. (a) GRANTS TO STATES.—The Sec-  
 14 retary may make grants to eligible coastal States to sup-  
 15 port voluntary State efforts to initiate and complete sur-  
 16 veys of portions of coastal State waters and Federal wa-  
 17 ters adjacent to a State’s coastal zone, in consultation  
 18 with the Minerals Management Service, to identify poten-  
 19 tial areas suitable or unsuitable for the exploration, devel-  
 20 opment, and production of alternative energy that are con-  
 21 sistent with the enforceable policies of coastal manage-  
 22 ment plans approved pursuant to section 306(d).

23 “(b) SURVEY ELEMENTS.—Surveys developed with  
 24 grants under this section may include, but not be limited  
 25 to—

26 “(1) hydrographic and bathymetric surveys;

1           “(2) oceanographic observations and measure-  
2           ments of the physical ocean environment, especially  
3           seismically active areas;

4           “(3) identification and characterization of sig-  
5           nificant or sensitive marine ecosystems or other  
6           areas possessing important conservation, rec-  
7           reational, ecological, historic, or aesthetic values;

8           “(4) surveys of existing marine uses in the  
9           outer Continental Shelf and identification of poten-  
10          tial conflicts;

11          “(5) inventories and surveys of shore locations  
12          and infrastructure capable of supporting alternative  
13          energy development;

14          “(6) inventories and surveys of offshore loca-  
15          tions and infrastructure capable of supporting alter-  
16          native energy development; and

17          “(7) other actions as may be necessary.

18          “(c) PARTICIPATION AND COOPERATION.—To the ex-  
19          tent practicable, coastal States shall provide opportunity  
20          for the participation in surveys under this section by rel-  
21          evant Federal agencies, State agencies, local governments,  
22          regional organizations, port authorities, and other inter-  
23          ested parties and stakeholders, public and private, that is  
24          adequate to develop a comprehensive survey.

1       “(d) GUIDELINES.—The Secretary shall, within 180  
2 days after the date of enactment of this section and after  
3 consultation with the coastal States, publish guidelines for  
4 the application for and use of grants under this section.

5       “(e) ANNUAL GRANTS.—For each of fiscal years  
6 2008 through 2011, the Secretary may make a grant to  
7 a coastal State under this section if the coastal State dem-  
8 onstrates to the satisfaction of the Secretary that the  
9 grant will be used to develop an alternative energy survey  
10 consistent with the requirements set forth in this section.

11       “(f) GRANT AMOUNTS.—The amount of any grant  
12 under this section shall not exceed \$750,000 for any fiscal  
13 year.

14       “(g) STATE MATCH.—

15               “(1) BEFORE FISCAL YEAR 2010.—The Sec-  
16 retary shall not require any State matching fund  
17 contribution for grants awarded under this section  
18 for any fiscal year before fiscal year 2010.

19               “(2) AFTER FISCAL YEAR 2010.—The Secretary  
20 shall require a coastal State to provide a matching  
21 fund contribution for a grant under this section for  
22 surveys of a State’s coastal waters, according to—

23                       “(A) a 2-to-1 ratio of Federal-to-State con-  
24 tributions for fiscal year 2010; and

1                   “(B) a 1-to-1 ratio of Federal-to-State  
2                   contributions for fiscal year 2011.

3                   “(3) LIMITATION.—The Secretary shall not re-  
4                   quire any matching funds for surveys of Federal wa-  
5                   ters adjacent to a State’s coastal zone.

6                   “(h) SECRETARIAL REVIEW.—After an initial grant  
7                   is made to a coastal State under this section, no subse-  
8                   quent grant may be made to that coastal State under this  
9                   section unless the Secretary finds that the coastal State  
10                  is satisfactorily developing its survey.

11                  “(i) LIMITATION ON ELIGIBILITY.—No coastal State  
12                  is eligible to receive grants under this section for more  
13                  than 4 fiscal years.

14                  “(j) APPLICABILITY.—This section and the surveys  
15                  conducted with assistance under this section shall not be  
16                  construed to convey any new authority to any coastal  
17                  State, or repeal or supersede any existing authority of any  
18                  Federal agency, to regulate the siting, licensing, leasing,  
19                  or permitting of alternative energy facilities in areas of  
20                  the outer Continental Shelf under the administration of  
21                  the Federal Government. Nothing in this section repeals  
22                  or supersedes any existing coastal State authority pursu-  
23                  ant to State or Federal law.

24                  “(k) PRIORITY.—Any area that is identified as suit-  
25                  able for potential alternative energy development under

1 surveys developed with assistance under this section shall  
2 be given priority consideration by Federal agencies for the  
3 siting, licensing, leasing, or permitting of alternative en-  
4 ergy facilities. Any area that is identified as unsuitable  
5 under surveys developed with assistance under this section  
6 shall be avoided by Federal agencies to the maximum ex-  
7 tent practicable.

8 “(1) ASSISTANCE BY THE SECRETARY.—The Sec-  
9 retary shall—

10 “(1) under section 307(a) and to the extent  
11 practicable, make available to coastal States the re-  
12 sources and capabilities of the National Oceanic and  
13 Atmospheric Administration to provide technical as-  
14 sistance to the coastal States to develop surveys  
15 under this section; and

16 “(2) encourage other Federal agencies with rel-  
17 evant expertise to participate in providing technical  
18 assistance under this subsection.”.

19 (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
20 318(a) of the Coastal Zone Management Act of 1972 (16  
21 U.S.C. 1464) is amended—

22 (1) in paragraph (1)(C) by striking “and” after  
23 the semicolon;

24 (2) in paragraph (2), by striking the period at  
25 the end and inserting a semicolon; and

1 (3) by adding at the end the following:

2 “(3) for grants under section 306B such sums  
3 as are necessary; and”.

4 **SEC. 7302. CANAL-SIDE POWER PRODUCTION AT BUREAU**  
5 **OF RECLAMATION PROJECTS.**

6 (a) EVALUATION AND REPORT.—Not later than one  
7 year after the date of the enactment of this Act, the Sec-  
8 retary of the Interior shall complete an evaluation and re-  
9 port to Congress on the potential for developing rights-  
10 of-way along Bureau of Reclamation canals and infra-  
11 structure for solar or wind energy production through  
12 leasing of lands or other means. The report to Congress  
13 shall specify—

14 (1) location of potential rights-of-way for en-  
15 ergy production;

16 (2) total acreage available for energy produc-  
17 tion;

18 (3) existing transmission infrastructure at sites;

19 (4) estimates of fair market leasing value of po-  
20 tential energy sites; and

21 (5) estimate energy development potential at  
22 sites.

23 (b) CONSULTATION.—In carrying out this section the  
24 Secretary of the Interior shall consult with persons that  
25 would be affected by development of rights-of-ways re-

1 ferred to in subsection (a), including the beneficiaries of  
2 the canal and infrastructure evaluated under that sub-  
3 section.

4 (c) LIMITATIONS.—Nothing in this section—

5 (1) shall be construed to authorize the Bureau  
6 of Reclamation or any contractor hired by the Bu-  
7 reau of Reclamation to inventory or access rights-of-  
8 way owned or operated and maintained by non-Fed-  
9 eral interests, unless such interests provide written  
10 permission for such inventory or an agreement or  
11 contract governing Federal access is in effect;

12 (2) shall be construed to impede accessibility,  
13 impair project operations and maintenance, or create  
14 additional costs for entities managing the rights-of-  
15 way; or

16 (3) shall be used as the basis of an increase in  
17 project-use power or preference power costs that will  
18 be borne by the consumer.

19 **SEC. 7303. INCREASING ENERGY EFFICIENCIES FOR WATER**  
20 **DESALINATION.**

21 The Water Desalination Act of 1996 (42 U.S.C.  
22 10301 note; Public Law 104–298) is amended by adding  
23 at the end the following new section:

1 **“SEC. 10. RESEARCH ON REVERSE OSMOSIS TECHNOLOGY**  
2 **FOR WATER DESALINATION AND WATER RE-**  
3 **CYCLING.**

4 “(a) RESEARCH PROGRAM.—The Secretary of the In-  
5 terior, in consultation with the Secretary of Energy, shall  
6 implement a program to research methods for improving  
7 the energy efficiency of reverse osmosis technology for  
8 water desalination, water contamination, and water recy-  
9 cling.

10 “(b) REPORT.—Not later than one year after the  
11 date of the enactment of this Act, the Secretary of the  
12 Interior shall submit to Congress a report which shall in-  
13 clude—

14 “(1) a review of existing and emerging tech-  
15 nologies, both domestic and international, that are  
16 likely to improve energy efficiency or utilize renew-  
17 able energy sources at existing and future desalina-  
18 tion and recycling facilities; and

19 “(2) an analysis of the economic viability of en-  
20 ergy efficiency technologies.”.

21 **SEC. 7304. ESTABLISHING A PILOT PROGRAM FOR THE DE-**  
22 **VELOPMENT OF STRATEGIC SOLAR RE-**  
23 **SERVES ON FEDERAL LANDS.**

24 (a) PURPOSE.—The purpose of this section is to es-  
25 tablish a pilot program for the development of strategic  
26 solar reserves on Federal lands for the advancement, de-

1 velopment, assessment, and installation of commercial  
2 solar electric energy systems.

3 (b) STRATEGIC SOLAR RESERVE PILOT PROGRAM.—

4 (1) SITE SELECTION.—The Secretary of the In-  
5 terior, in consultation with the Secretary of Energy,  
6 the Secretary of Defense, and the Federal Energy  
7 Regulatory Commission, States, tribal, or local units  
8 of governments, as appropriate, affected utility in-  
9 dustries, and other interested persons, shall complete  
10 the following:

11 (A) Identify Federal lands under the juris-  
12 diction of the Bureau of Land Management,  
13 subject to valid existing rights, that are suitable  
14 and feasible for the installation of solar electric  
15 energy systems sufficient to create a solar en-  
16 ergy reserve of no less than 4 GW and no more  
17 than 25 GW.

18 (B) Perform any environmental reviews  
19 that may be required to complete the designa-  
20 tion of such solar reserves.

21 (C) Incorporate the designated solar re-  
22 serves into the relevant agency land use and re-  
23 source management plans or equivalent plans.

24 (D) Identify the needed transmission up-  
25 grades to the solar reserves.

1           (2) MINIMUM POWER OF SITES.—Each site  
2 identified as suitable and feasible for the installation  
3 of solar electric energy systems shall be sufficient for  
4 the installation of at least 1 GW.

5           (3) LANDS NOT INCLUDED.—The following  
6 Federal lands shall not be included within a stra-  
7 tegic solar reserve site:

8                   (A) Components of the National Land-  
9 scape Conservation System.

10                   (B) Areas of Critical Environmental Con-  
11 cern.

12           (4) IMPLEMENTATION OF THE PILOT PROGRAM  
13 FOR STRATEGIC SOLAR RESERVES.—

14                   (A) IN GENERAL.—The Secretary of the  
15 Interior, in consultation with the Secretary of  
16 Energy and following the completion of the re-  
17 quirements under paragraph (1)(B), shall expe-  
18 ditiously implement a strategic solar reserve  
19 pilot program in order to issue rights-of-way on  
20 land identified under paragraph (1)(A) to  
21 produce no less than 4 GW and no more than  
22 25 GW of solar electric power from that land.

23                   (B) CRITERIA FOR APPLICATIONS.—The  
24 Secretary of the Interior, in consultation with  
25 the Secretary of Energy, shall establish criteria

1 for approving applications to obtain rights-of-  
2 way on land under this paragraph based, in  
3 part, on the proposed solar electric energy tech-  
4 nologies proposed to be used on such rights-of-  
5 way.

6 (C) VARIETY OF TECHNOLOGIES.—The  
7 Secretary of the Interior, in consultation with  
8 the Secretary of Energy, shall provide for a va-  
9 riety of solar electric energy technologies to be  
10 used on rights-of-way on land under this para-  
11 graph.

12 (D) MILESTONES.—The Secretary of the  
13 Interior, in consultation with the Secretary of  
14 Energy, shall develop milestones for activities  
15 on rights-of-way on land under this paragraph  
16 to ensure due diligence in the development of  
17 such land.

18 (5) ENVIRONMENTAL COMPLIANCE.—The Sec-  
19 retary of the Interior shall complete all necessary en-  
20 vironmental surveys, compliance, and permitting for  
21 rights-of-way pursuant to title V of the Federal  
22 Land Policy and Management Act of 1976 for each  
23 strategic solar reserve, as expeditiously as possible.  
24 Each applicant shall pay all costs of environmental  
25 compliance, including when a determination is made

1 that the land that is the subject of the application  
2 is not suitable and feasible for installation or the bid  
3 is withdrawn following the initiation of such environ-  
4 mental compliance.

5 (6) PERMITS.—The Secretary of the Interior  
6 shall ensure that all strategic solar reserve installa-  
7 tions pursuant to this section are permitted using an  
8 expedited permitting process. The Secretary shall, in  
9 consultation with the Secretary of Energy, complete  
10 the preparation of a Programmatic Environmental  
11 Impact Statement by the Departments of Energy  
12 and the Interior for purposes of this section.

13 (7) RENTAL FEE; RIGHT-OF-WAY TERM.—

14 (A) RENTAL FEE.—The rental fee for each  
15 strategic solar reserve right-of-way under this  
16 subsection shall be in the amount of \$300 per  
17 acre per year for the initial 10-year period, ex-  
18 cept that the rental fee shall be phased-in for  
19 a right-of-way during the initial 3 years after  
20 the signing of the right-of-way authorization.  
21 For the first year the rental fee shall be 25 per-  
22 cent of that amount. For the second year the  
23 rental fee shall be 50 percent of that amount.  
24 For the third year and each year thereafter the  
25 fee shall be 100 percent of that amount, except

1           that the rental fee after the initial 10-year pe-  
2           riod shall be adjusted by the Secretary of the  
3           Interior according to the Gross Domestic Prod-  
4           uct Implicit Price Deflator each year for the re-  
5           mainder of the term of the right-of-way author-  
6           ization. The rental fee shall be paid in annual  
7           payments commencing on the day the right-of-  
8           way authorization is signed. The rental fee es-  
9           tablished by this paragraph shall apply to all  
10          solar electric projects that have pending appli-  
11          cations with the Bureau of Land Management  
12          as of June 1, 2007.

13                 (B) TERM.—Each right-of-way authoriza-  
14                 tion shall be effective for an initial term of 30  
15                 years. Such term may be extended by the Sec-  
16                 retary of the Interior for periods of 10 years.

17                 (8) REPORT TO CONGRESS.—The Secretary of  
18                 the Interior, in consultation with the Secretary of  
19                 Energy, shall submit a report to Congress on the  
20                 findings of the pilot program—

21                         (A) not later than 3 years after the instal-  
22                         lation of the first facility pursuant to this sec-  
23                         tion; and

24                         (B) 10 years after the installation of the  
25                         first facility pursuant to this section.

1 (c) BUY AMERICAN ACT.—Beginning 3 years after  
2 the date of enactment of this Act, any equipment used  
3 on lands included within a strategic solar reserve site must  
4 be American-made, as that term is used in the Buy Amer-  
5 ican Act (41 U.S.C. 10a et seq.).

6 (d) SUNSET.—Except as provided in subsection  
7 (b)(7), the authorities contained in this section shall expire  
8 10 years after the date of the enactment of this Act.

9 **SEC. 7305. OTEC REGULATIONS.**

10 The Administrator of the National Oceanic and At-  
11 mospheric Administration shall, within two years after the  
12 date of enactment of this Act, issue regulations necessary  
13 to implement the Administrator’s authority to license off-  
14 shore thermal energy conversion facilities under the Ocean  
15 Thermal Energy Conversion Research, Development, and  
16 Demonstration Act (42 U.S.C. 9001 et seq.).

17 **SEC. 7306. BIOMASS UTILIZATION PILOT PROGRAM.**

18 (a) REPLACEMENT OF CURRENT GRANT PRO-  
19 GRAM.—Section 210 of the Energy Policy Act of 2005 (42  
20 U.S.C. 15855) is amended to read as follows:

21 **“SEC. 210. BIOMASS UTILIZATION PILOT PROGRAM.**

22 “(a) FINDINGS.—Congress finds the following:

23 “(1) The supply of woody biomass for energy  
24 production is directly linked to forest management

1 planning to a degree far greater than in the case of  
2 other types of energy development.

3 “(2) As a consequence of this linkage, the proc-  
4 ess of developing and evaluating appropriate tech-  
5 nologies and facilities for woody biomass energy and  
6 utilization must be integrated with long-term forest  
7 management planning processes, particularly in situ-  
8 ations where Federal lands dominate the forested  
9 landscape.

10 “(b) BIOMASS DEFINITION FOR FEDERAL FOREST  
11 LANDS.—In this section, with respect to organic material  
12 removed from National Forest System lands or from pub-  
13 lic lands administered by the Secretary of the Interior, the  
14 term ‘biomass’ covers only organic material from—

15 “(1) ecological forest restoration;

16 “(2) small-diameter byproducts of hazardous  
17 fuels treatments;

18 “(3) pre-commercial thinnings;

19 “(4) brush;

20 “(5) mill residues; and

21 “(6) slash.

22 “(c) PILOT PROGRAM.—The Secretary of Agriculture  
23 and the Secretary of the Interior shall establish a pilot  
24 program, to be known as the ‘Biomass Utilization Pilot  
25 Program’, involving 10 different forest types on Federal

1 lands, under which the Secretary concerned will provide  
2 technical assistance and grants to persons to support the  
3 following biomass-related activities:

4           “(1) The development of biomass utilization in-  
5 frastructure to support hazardous fuel reduction and  
6 ecological forest restoration.

7           “(2) The research and implementation of inte-  
8 grated facilities that seek to utilize woody biomass  
9 for its highest and best uses, with particular empha-  
10 sis on projects that are linked to implementing com-  
11 munity wildfire protection plans, ecological forest  
12 restoration, and economic development in rural com-  
13 munities.

14           “(3) The testing of multiple technologies and  
15 approaches to biomass utilization for energy, with  
16 emphasis on improving energy efficiency, developing  
17 thermal applications and distributed heat, biofuels,  
18 and achieving cleaner emissions including through  
19 combustion with other fuels, as well as other value-  
20 added uses.

21           “(d) BIOMASS SUPPLY STUDY.—Prior to the develop-  
22 ment of any biomass utilization pilot projects, the Sec-  
23 retary concerned shall develop a study to determine the  
24 long-term, ecologically sustainable, biomass supply avail-  
25 able in the pilot program area. The study shall incorporate

1 results form coordinated resource offering protocol  
2 (CROP) studies. The study shall also analyze the long-  
3 term availability of biomass materials within a reasonable  
4 transportation distance. The biomass supply studies shall  
5 be developed through a collaborative approach, as evi-  
6 denced by the broad involvement, analysis, and agreement  
7 of interested persons, including local governments, energy  
8 developers, conservationists, and land management agen-  
9 cies. The results of the biomass supply study shall be a  
10 basis for determining the project scale, as outlined in sub-  
11 section (g).

12 “(e) EXCLUSION OF CERTAIN FEDERAL LAND.—The  
13 following Federal lands may not be included within a pilot  
14 project site:

15 “(1) Federal land containing old-growth forest  
16 or late-successional forest, unless the Secretary con-  
17 cerned determines that the pilot project on such land  
18 is appropriate for the applicable forest type and  
19 maximizes and enhances the retention of late-succes-  
20 sional and large- and old-growth trees, late-succes-  
21 sional and old-growth forest structure, and late-suc-  
22 cessional and old-growth forest composition.

23 “(2) Federal land on which the removal of vege-  
24 tation is prohibited, including components of the Na-  
25 tional Wilderness Preservation System.

1           “(3) Wilderness Study Areas.

2           “(4) Inventoried roadless areas.

3           “(5) Components of the National Landscape  
4 Conservation System.

5           “(6) National Monuments.

6           “(f) MULTIPLE PROJECTS.—In conducting the pilot  
7 program, the Secretary concerned shall include a variety  
8 of projects involving—

9           “(1) innovations in facilities of various sizes  
10 and processing techniques; and

11           “(2) the full spectrum of woody biomass pro-  
12 ducing regions of the United States.

13           “(g) SELECTION CRITERIA AND PROJECT SCALE.—  
14 In selecting the projects to be conducted under the pilot  
15 program, and the appropriate scale of projects, the Sec-  
16 retary concerned shall consider criteria that evaluate exist-  
17 ing economic, ecological, and social conditions, focusing on  
18 opportunities such as workforce training, job creation, eco-  
19 system health, reducing energy costs, and facilitating the  
20 production of alternative energy fuels. The agreement on  
21 the scale of a project shall be reached through a collabo-  
22 rative approach, as evidenced by the broad involvement,  
23 analysis, and agreement of interested persons, including  
24 local governments, energy developers, conservationists,  
25 and land management agencies. In selecting the appro-

1 puate scale of projects to be conducted under the pilot  
2 program, the Secretary concerned shall also consider the  
3 results of the supply study as outlined in subsection (d).

4       “(h) MONITORING AND REPORTING REQUIRE-  
5 MENTS.—As part of the pilot program, the Secretary con-  
6 cerned shall impose monitoring and reporting require-  
7 ments to ensure that the ecological, social, and economic  
8 effects of the projects conducted under the pilot program  
9 are being monitored and that the accomplishments, chal-  
10 lenges, and lessons of each project are recorded and re-  
11 ported.

12       “(i) OTHER DEFINITIONS.—In this section:

13               “(1) HIGHEST AND BEST USE.—The term  
14 ‘highest and best use’, with regard to biomass,  
15 means—

16                       “(A) creating from raw materials those  
17 products and those biomass uses that will  
18 achieve the highest market value; and

19                       “(B) yielding a wide range of existing and  
20 innovative products and biomass uses that cre-  
21 ate new markets, stimulate existing ones, and  
22 improve rural economies, maintains or improves  
23 ecosystem integrity, while also supporting tradi-  
24 tional biomass energy generation.

1           “(2) PILOT PROGRAM.—The term ‘pilot pro-  
2           gram’ means the Biomass Utilization Pilot Program  
3           established pursuant to this section.

4           “(3) SECRETARY CONCERNED.—The term ‘Sec-  
5           retary concerned’ means the Secretary of Agri-  
6           culture, with respect to National Forest System  
7           lands, and the Secretary of the Interior, with respect  
8           to public lands administered by the Secretary of the  
9           Interior.

10          “(4) COMMUNITY WILDFIRE PROTECTION  
11          PLAN.—The term ‘community wildfire protection  
12          plan’ has the meaning given that term in section  
13          101(3) of the Healthy Forest Restoration Act of  
14          2003 (16 U.S.C. 6511(3)), which is further de-  
15          scribed by the Western Governors Association in the  
16          document entitled ‘Preparing a Community Wildfire  
17          Protection Plan: A Handbook for Wildland-Interface  
18          Communities’ and dated March 2004.

19          “(5) FEDERAL LAND.—The term ‘Federal land’  
20          means—

21                 “(A) land of the National Forest System  
22                 (as defined in section 11(a) of the Forest and  
23                 Rangeland Renewable Resources Planning Act  
24                 of 1974 (16 U.S.C. 1609(a)) administered by

1 the Secretary of Agriculture, acting through the  
2 Chief of the Forest Service; and

3 “(B) public lands (as defined in section  
4 103 of the Federal Land Policy and Manage-  
5 ment Act of 1976 (43 U.S.C. 1702)), the sur-  
6 face of which is administered by the Secretary  
7 of the Interior, acting through the Director of  
8 the Bureau of Land Management.

9 “(6) INVENTORIED ROADLESS AREA.—The  
10 term ‘Inventoried roadless area’ means one of the  
11 areas identified in the set of inventoried roadless  
12 areas maps contained in the Forest Service Roadless  
13 Areas Conservation, Final Environmental Impact  
14 Statement, Volume 2, dated November 2000.

15 “(j) AUTHORIZATION OF APPROPRIATIONS.—There  
16 is authorized to be appropriated such sums as may be nec-  
17 essary to carry out the pilot program.”.

18 (b) CLERICAL AMENDMENT.—The table of contents  
19 in section 1(b) of such Act is amended by striking the  
20 item relating to section 210 and inserting the following  
21 new item:

“Sec. 210. Biomass utilization pilot program.”.

22 **SEC. 7307. PROGRAMMATIC ENVIRONMENTAL IMPACT**  
23 **STATEMENT.**

24 The Secretary of Commerce and the Secretary of the  
25 Interior shall, in cooperation with the Federal Energy

1 Regulatory Commission and the Secretary of Energy, and  
2 in consultation with appropriate State agencies, jointly  
3 prepare programmatic environmental impact statements  
4 which contain all the elements of an environmental impact  
5 statement under section 102 of the National Environ-  
6 mental Policy Act of 1969 (42 U.S.C. 4332), regarding  
7 the impacts of the deployment of marine and hydrokinetic  
8 renewable energy technologies in the navigable waters of  
9 the United States. One programmatic environmental im-  
10 pact statement shall be prepared under this section for  
11 each of the Environmental Protection Agency regions of  
12 the United States. The agencies shall issue the pro-  
13 grammatic environmental impact statements under this  
14 section not later than 18 months after the date of enact-  
15 ment of this Act. The programmatic environmental impact  
16 statements shall evaluate among other things the potential  
17 impacts of site selection on fish and wildlife and related  
18 habitat. Nothing in this section shall operate to delay con-  
19 sideration of any application for a license or permit for  
20 a marine and hydrokinetic renewable energy technology  
21 project.

1     **Subtitle D—Carbon Capture and**  
2             **Climate Change Mitigation**  
3                     **CHAPTER 1—GEOLOGICAL**  
4                     **SEQUESTRATION ASSESSMENT**

5     **SEC. 7401. SHORT TITLE.**

6             This chapter may be cited as the “National Carbon  
7     Dioxide Storage Capacity Assessment Act of 2007”.

8     **SEC. 7402. NATIONAL ASSESSMENT.**

9             (a) **DEFINITIONS.**—In this section:

10                 (1) **ASSESSMENT.**—The term “assessment”  
11             means the national assessment of capacity for car-  
12             bon dioxide completed under subsection (f).

13                 (2) **CAPACITY.**—The term “capacity” means the  
14             portion of a storage formation that can retain car-  
15             bon dioxide in accordance with the requirements (in-  
16             cluding physical, geological, and economic require-  
17             ments) established under the methodology developed  
18             under subsection (b).

19                 (3) **ENGINEERED HAZARD.**—The term “engi-  
20             neered hazard” includes the location and completion  
21             history of any well that could affect potential stor-  
22             age.

23                 (4) **RISK.**—The term “risk” includes any risk  
24             posed by geomechanical, geochemical,  
25             hydrogeological, structural, and engineered hazards.

1           (5) SECRETARY.—The term “Secretary” means  
2           the Secretary of the Interior, acting through the Di-  
3           rector of the United States Geological Survey.

4           (6) STORAGE FORMATION.—The term “storage  
5           formation” means a deep saline formation,  
6           unmineable coal seam, or oil or gas reservoir that is  
7           capable of accommodating a volume of industrial  
8           carbon dioxide.

9           (b) METHODOLOGY.—Not later than 1 year after the  
10          date of enactment of this Act, the Secretary shall develop  
11          a methodology for conducting an assessment under sub-  
12          section (f), taking into consideration—

13                 (1) the geographical extent of all potential stor-  
14                 age formations in all States;

15                 (2) the capacity of the potential storage forma-  
16                 tions;

17                 (3) the injectivity of the potential storage for-  
18                 mations;

19                 (4) an estimate of potential volumes of oil and  
20                 gas recoverable by injection and storage of industrial  
21                 carbon dioxide in potential storage formations;

22                 (5) the risk associated with the potential stor-  
23                 age formations; and

1           (6) the Carbon Sequestration Atlas of the  
2 United States and Canada that was completed by  
3 the Department of Energy in April 2006.

4 (c) COORDINATION.—

5           (1) FEDERAL COORDINATION.—

6           (A) CONSULTATION.—The Secretary shall  
7 consult with the Secretary of Energy and the  
8 Administrator of the Environmental Protection  
9 Agency on issues of data sharing, format, devel-  
10 opment of the methodology, and content of the  
11 assessment required under this section to en-  
12 sure the maximum usefulness and success of  
13 the assessment.

14           (B) COOPERATION.—The Secretary of En-  
15 ergy and the Administrator shall cooperate with  
16 the Secretary to ensure, to the maximum extent  
17 practicable, the usefulness and success of the  
18 assessment.

19           (2) STATE COORDINATION.—The Secretary  
20 shall consult with State geological surveys and other  
21 relevant entities to ensure, to the maximum extent  
22 practicable, the usefulness and success of the assess-  
23 ment.

1 (d) EXTERNAL REVIEW AND PUBLICATION.—On  
2 completion of the methodology under subsection (b), the  
3 Secretary shall—

4 (1) publish the methodology and solicit com-  
5 ments from the public and the heads of affected  
6 Federal and State agencies;

7 (2) establish a panel of individuals with exper-  
8 tise in the matters described in paragraphs (1)  
9 through (5) of subsection (b) composed, as appro-  
10 priate, of representatives of Federal agencies, insti-  
11 tutions of higher education, nongovernmental organi-  
12 zations, State organizations, industry, and inter-  
13 national geoscience organizations to review the  
14 methodology and comments received under para-  
15 graph (1); and

16 (3) on completion of the review under para-  
17 graph (2), publish in the Federal Register the re-  
18 vised final methodology.

19 (e) PERIODIC UPDATES.—The methodology devel-  
20 oped under this section shall be updated periodically (in-  
21 cluding at least once every 5 years) to incorporate new  
22 data as the data becomes available.

23 (f) NATIONAL ASSESSMENT.—

24 (1) IN GENERAL.—Not later than 2 years after  
25 the date of publication of the methodology under

1 subsection (d)(1), the Secretary, in consultation with  
2 the Secretary of Energy and State geological sur-  
3 veys, shall complete a national assessment of capac-  
4 ity for carbon dioxide in accordance with the meth-  
5 odology.

6 (2) GEOLOGICAL VERIFICATION.—As part of  
7 the assessment under this subsection, the Secretary  
8 shall carry out a drilling program to supplement the  
9 geological data relevant to determining storage ca-  
10 pacity of carbon dioxide in geological storage forma-  
11 tions, including—

12 (A) well log data;

13 (B) core data; and

14 (C) fluid sample data.

15 (3) PARTNERSHIP WITH OTHER DRILLING PRO-  
16 GRAMS.—As part of the drilling program under  
17 paragraph (2), the Secretary shall enter, as appro-  
18 priate, into partnerships with other entities to collect  
19 and integrate data from other drilling programs rel-  
20 evant to the storage of carbon dioxide in geologic  
21 formations.

22 (4) INCORPORATION INTO NATCARB.—

23 (A) IN GENERAL.—On completion of the  
24 assessment, the Secretary of Energy shall incor-  
25 porate the results of the assessment using the

1 NatCarb database, to the maximum extent  
2 practicable.

3 (B) RANKING.—The database shall include  
4 the data necessary to rank potential storage  
5 sites for capacity and risk, across the United  
6 States, within each State, by formation, and  
7 within each basin.

8 (5) REPORT.—Not later than 180 days after  
9 the date on which the assessment is completed, the  
10 Secretary shall submit to the Committee on Natural  
11 Resources of the House of Representatives and the  
12 Committee on Energy and Natural Resources of the  
13 Senate a report describing the findings under the as-  
14 sessment.

15 (6) PERIODIC UPDATES.—The national assess-  
16 ment developed under this section shall be updated  
17 periodically (including at least once every 5 years) to  
18 support public and private sector decisionmaking.

19 (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
20 authorized to be appropriated to carry out this section  
21 \$30,000,000 for the period of fiscal years 2008 through  
22 2012.

**CHAPTER 2—TERRESTRIAL  
SEQUESTRATION ASSESSMENT**

**SEC. 7421. REQUIREMENT TO CONDUCT AN ASSESSMENT.**

(a) **IN GENERAL.**—The Secretary of the Interior, acting through the United States Geological Survey, shall—

(1) conduct an assessment of the amount of carbon stored in terrestrial, aquatic, and coastal ecosystems (including estuaries);

(2) determine the processes that control the flux of carbon in and out of each ecosystem;

(3) estimate the potential for increasing carbon sequestration in natural systems through management measures or restoration activities in each ecosystem; and

(4) develop near-term and long-term adaptation strategies that can be employed to enhance the sequestration of carbon in each ecosystem.

(b) **USE OF NATIVE PLANT SPECIES.**—In developing management measures, restoration activities, or adaptation strategies, the Secretary shall emphasize the use of native plant species for each ecosystem.

(c) **CONSULTATION.**—The Secretary shall develop the methodology and conduct the assessment in consultation with the Secretary of Energy, the Administrator of the

1 National Oceanic and Atmospheric Administration, and  
2 the heads of other relevant agencies.

3 **SEC. 7422. METHODOLOGY.**

4 (a) IN GENERAL.—Within one year after the date of  
5 enactment of this Act, the Secretary shall develop a meth-  
6 odology for conducting the assessment.

7 (b) PUBLICATION OF PROPOSED METHODOLOGY;  
8 COMMENT.—Upon completion of a proposed methodology,  
9 the Secretary shall publish the proposed methodology and  
10 solicit comments from the public and heads of affected  
11 Federal and State agencies for 60 days before publishing  
12 a final methodology.

13 **SEC. 7423. COMPLETION OF ASSESSMENT AND REPORT.**

14 The Secretary shall—

15 (1) complete the national assessment within 3  
16 years after publication of the final methodology  
17 under section 7422; and

18 (2) submit a report describing the results of the  
19 assessment to the House Committee on Natural Re-  
20 sources and the Senate Committee on Energy and  
21 Natural Resources within 180 days after the assess-  
22 ment is completed.

1 **SEC. 7424. AUTHORIZATION OF APPROPRIATIONS.**

2 There is authorized to be appropriated to carry out  
3 this chapter \$15,000,000 for the period of fiscal years  
4 2008 through 2012.

5 **CHAPTER 3—SEQUESTRATION ACTIVITIES**

6 **SEC. 7431. CARBON DIOXIDE STORAGE INVENTORY.**

7 Section 354 of the Energy Policy Act of 2005 (42  
8 U.S.C. 15910) is amended by redesignating subsection (d)  
9 as subsection (e), and by inserting after subsection (c) the  
10 following:

11 “(d) RECORDS AND INVENTORY.—The Secretary of  
12 the Interior, acting through the Bureau of Land Manage-  
13 ment, shall maintain records on and an inventory of the  
14 amount of carbon dioxide stored from Federal energy  
15 leases.”.

16 **SEC. 7432. FRAMEWORK FOR GEOLOGICAL CARBON SE-**  
17 **QUESTRATION ON FEDERAL LANDS.**

18 Not later than 1 year after the date of enactment  
19 of this Act, the Secretary of the Interior shall submit to  
20 the Committee on Natural Resources of the House of Rep-  
21 resentatives and the Committee on Energy and Natural  
22 Resources of the Senate a report on a recommended regu-  
23 latory and certification framework for conducting geologi-  
24 cal carbon sequestration activities on Federal lands. The  
25 Secretary shall identify a lead agency within the Depart-  
26 ment of the Interior to develop this framework. One of

1 the goals of the framework shall be to identify what ac-  
2 tions need to be taken in order to allow for commercial-  
3 scale geological carbon sequestration activities to be un-  
4 dertaken on Federal lands as expeditiously as possible.

5 **CHAPTER 4—NATURAL RESOURCES AND**  
6 **WILDLIFE PROGRAMS**

7 **Subchapter A—Natural Resources**  
8 **Management and Climate Change**

9 **SEC. 7441. NATURAL RESOURCES MANAGEMENT COUNCIL**  
10 **ON CLIMATE CHANGE.**

11 (a) ESTABLISHMENT.—The Secretary of the Interior  
12 shall establish a National Resources Management Council  
13 on Climate Change to address the impacts of climate  
14 change on Federal lands, the ocean environment, and the  
15 Federal water infrastructure. The Council shall include  
16 the head of each of the following agencies:

- 17 (1) The Bureau of Land Management.  
18 (2) The National Park Service.  
19 (3) United States Geological Survey.  
20 (4) The United States Fish and Wildlife Serv-  
21 ice.  
22 (5) The Forest Service.  
23 (6) The Bureau of Reclamation.  
24 (7) The Council on Environmental Quality.  
25 (8) The Minerals Management Service.

1           (9) The Office of Surface Mining Reclamation  
2           and Enforcement.

3           (b) PLAN.—Not later than one year after the date  
4 of the enactment of this Act, the Secretary of the Interior  
5 shall submit a plan to Congress describing what the agen-  
6 cies listed in subsection (a) shall do both individually and  
7 cooperatively to accomplish the following:

8           (1) Working in cooperation with the United  
9           States Geological Survey, develop an interagency in-  
10          ventory and Geographic Information System data-  
11          base of United States ecosystems, water supplies,  
12          and water infrastructure vulnerable to climate  
13          change.

14          (2) Manage land, water, and ocean resources in  
15          a manner that takes into account projected climate  
16          change impacts, including but not limited to, pro-  
17          longed periods of drought and changing hydrology.

18          (3) Develop consistent protocols to incorporate  
19          climate change impacts in land and water manage-  
20          ment decisions across land and water resources  
21          under the jurisdiction of those agencies listed in sub-  
22          section (a).

23          (4) Incorporate the most current, peer-reviewed  
24          science on climate change and the economic, social,  
25          and ecological impacts of climate change into the de-

1 cision making process of those agencies listed in sub-  
2 section (a).

3 (c) COORDINATION.—The activities of the Natural  
4 Resources Management Council on Climate Change shall  
5 be coordinated with the activities of the United States  
6 Global Change Research Program.

7 **Subchapter B—National Policy and Strategy**  
8 **for Wildlife**

9 **SEC. 7451. SHORT TITLE.**

10 This subchapter may be cited as the “Global Warm-  
11 ing Wildlife Survival Act”.

12 **SEC. 7452. NATIONAL POLICY ON WILDLIFE AND GLOBAL**  
13 **WARMING.**

14 It is the policy of the Federal Government, in co-  
15 operation with State, tribal, and affected local govern-  
16 ments, other concerned public and private organizations,  
17 landowners, and citizens to use all practicable means and  
18 measures—

19 (1) to assist wildlife populations and their habi-  
20 tats in adapting to and surviving the effects of glob-  
21 al warming; and

22 (2) to ensure the persistence and resilience of  
23 the wildlife of the United States, together with its  
24 habitat, as an essential part of our Nation’s culture,  
25 landscape, and natural resources.

1 **SEC. 7453. DEFINITIONS.**

2 In this chapter:

3 (1) **ECOLOGICAL PROCESSES.**—The term “eco-  
4 logical processes” means the biological, chemical,  
5 and physical interactions between the biotic and abi-  
6 otic components of ecosystems, including nutrient  
7 cycling, pollination, predator-prey relationships, soil  
8 formation, gene flow, hydrologic cycling, decomposi-  
9 tion, and disturbance regimes such as fire and flood-  
10 ing.

11 (2) **HABITAT LINKAGES.**—The term “habitat  
12 linkages” means areas that connect wildlife habitat  
13 or potential wildlife habitat, and that facilitate the  
14 ability of wildlife to move within a landscape in re-  
15 sponse to the effects of global warming.

16 (3) **SECRETARY.**—The term “Secretary” means  
17 the Secretary of the Interior.

18 (4) **WILDLIFE.**—The term “wildlife” means—  
19 (A) any species of wild, free-ranging fauna,  
20 including fish and other aquatic species; and  
21 (B) any fauna in a captive breeding pro-  
22 gram the object of which is to reintroduce indi-  
23 viduals of a depleted indigenous species into  
24 previously occupied range.

25 (5) **HABITAT.**—The term “habitat” means the  
26 physical, chemical, and biological properties that are

1 used by wildlife for growth, reproduction, and sur-  
2 vival, including aquatic and terrestrial plant commu-  
3 nities, food, water, cover, and space, on a tract of  
4 land, in a body of water, or in an area or region.

5 **SEC. 7454. NATIONAL STRATEGY.**

6 (a) REQUIREMENT.—

7 (1) IN GENERAL.—The Secretary shall, within  
8 two years after the date of the enactment of this  
9 Act, on the basis of the best available science as pro-  
10 vided by the science advisory board under section  
11 7455, and in cooperation with State fish and wildlife  
12 agencies and Indian tribes, promulgate a national  
13 strategy for assisting wildlife populations and their  
14 habitats in adapting to the impacts of global warm-  
15 ing.

16 (2) CONSULTATION AND COMMENT.—In devel-  
17 oping the national strategy, the Secretary shall—

18 (A) consult with the Secretary of Agri-  
19 culture, the Secretary of Commerce, the Admin-  
20 istrator of the Environmental Protection Agen-  
21 cy, local governments, conservation organiza-  
22 tions, scientists, and other interested stake-  
23 holders; and

24 (B) provide opportunity for public com-  
25 ment.

1 (b) CONTENTS.—

2 (1) IN GENERAL.—The Secretary shall include  
3 in the national strategy prioritized goals and meas-  
4 ures to—

5 (A) identify and monitor wildlife popu-  
6 lations, including game species, likely to be ad-  
7 versely affected by global warming, with par-  
8 ticular emphasis on wildlife populations at  
9 greatest need for conservation;

10 (B) identify and monitor coastal, marine,  
11 terrestrial, and freshwater habitat at greatest  
12 risk of being damaged by global warming;

13 (C) assist species in adapting to the im-  
14 pacts of global warming;

15 (D) protect, acquire, and restore wildlife  
16 habitat to build resilience to global warming;

17 (E) provide habitat linkages and corridors  
18 to facilitate wildlife movements in response to  
19 global warming;

20 (F) restore and protect ecological processes  
21 that sustain wildlife populations vulnerable to  
22 global warming; and

23 (G) incorporate consideration of climate  
24 change in, and integrate climate change adapta-  
25 tion strategies for wildlife and its habitat into,

1 the planning and management of Federal lands  
2 administered by the Department of the Interior  
3 and lands administered by the Forest Service.

4 (2) COORDINATION WITH OTHER PLANS.—In  
5 developing the national strategy, the Secretary shall  
6 to the maximum extent practicable—

7 (A) take into consideration research and  
8 information in State comprehensive wildlife con-  
9 servation plans, the North American Waterfowl  
10 Management Plan, the National Fish Habitat  
11 Action Plan, and other relevant plans; and

12 (B) coordinate and integrate, to the extent  
13 consistent with the policy set forth in section  
14 7452, the goals and measures identified in the  
15 national strategy with goals and measures iden-  
16 tified in such plans.

17 (c) REVISION.—The Secretary shall revise the na-  
18 tional strategy not later than five years after its initial  
19 promulgation, and not later than every ten years there-  
20 after, to reflect new information on the impacts of global  
21 warming on wildlife and its habitat and advances in the  
22 development of strategies for adapting to or mitigating for  
23 such impacts.

24 (d) IMPLEMENTATION.—

1           (1) IMPLEMENTATION ON FEDERAL LAND SYS-  
2           TEMS.—To achieve the goals of the national strategy  
3           and to implement measures for the conservation of  
4           wildlife and its habitat identified in the national  
5           strategy—

6                   (A) the Secretary of the Interior shall exer-  
7                   cise the authority of such Secretary under this  
8                   title and other laws within the Secretary’s juris-  
9                   diction pertaining to the administration of  
10                  lands; and

11                   (B) the Secretary of Agriculture shall exer-  
12                   cise the authority of such Secretary under this  
13                   title and other laws within the Secretary’s juris-  
14                   diction pertaining to the administration of  
15                  lands.

16           (2) WILDLIFE CONSERVATION PROGRAMS.—To  
17           the maximum extent practicable, the Secretary, the  
18           Secretary of Agriculture, and the Secretary of Com-  
19           merce shall utilize their authorities under other laws  
20           to achieve the goals of the national strategy.

21           (e) LIMITATION ON EFFECT.—Nothing in this sec-  
22           tion creates new authority or expands existing authority  
23           for the Secretary to regulate the uses of private property.

24   **SEC. 7455. ADVISORY BOARD.**

25           (a) SCIENCE ADVISORY BOARD.—

1           (1) IN GENERAL.—The Secretary shall establish  
2           and appoint the members of a science advisory board  
3           comprised of not less than 10 and not more than 20  
4           members recommended by the President of the Na-  
5           tional Academy of Sciences with expertise in wildlife  
6           biology, ecology, climate change and other relevant  
7           disciplines. The director of the National Global  
8           Warming and Wildlife Science Center established  
9           under subsection (b) shall be an ex officio member  
10          of the science advisory board.

11          (2) FUNCTIONS.—The science advisory board  
12          shall—

13                 (A) provide scientific and technical advice  
14                 and recommendations to the Secretary on the  
15                 impacts of global warming on wildlife and its  
16                 habitat, areas of habitat of particular impor-  
17                 tance for the conservation of wildlife popu-  
18                 lations affected by global warming, and strate-  
19                 gies and mechanisms to assist wildlife popu-  
20                 lations and their habitats in adapting to the im-  
21                 pacts of global warming in the management of  
22                 Federal lands and in other Federal programs  
23                 for wildlife conservation;

24                 (B) advise the National Global Warming  
25                 and Wildlife Science Center established under

1 subsection (b) and review the quality of the re-  
2 search programs of the Center; and

3 (C) advise the Secretary regarding the best  
4 science available for purposes of developing and  
5 revising the national strategy under section  
6 7454.

7 (3) PUBLIC AVAILABILITY.—The advice and  
8 recommendations of the science advisory board shall  
9 be available to the public.

10 (b) NATIONAL GLOBAL WARMING AND WILDLIFE  
11 SCIENCE CENTER.—

12 (1) IN GENERAL.—The Secretary shall establish  
13 the National Global Warming and Wildlife Science  
14 Center within the United States Geological Survey.

15 (2) FUNCTIONS.—The National Global Warm-  
16 ing and Wildlife Science Center shall—

17 (A) conduct scientific research on national  
18 issues related to the impacts of global warming  
19 on wildlife and its habitat and mechanisms for  
20 adaptation to, mitigation of, or prevention of  
21 such impacts;

22 (B) consult with and advise Federal land  
23 management agencies and Federal wildlife  
24 agencies regarding the impacts of global warm-  
25 ing on wildlife and its habitat and mechanisms

1 for adaptation to or mitigation of such impacts,  
2 and the incorporation of information regarding  
3 such impacts and the adoption of mechanisms  
4 for adaptation or mitigation of such impacts in  
5 the management and planning for Federal  
6 lands and in the administration of Federal wild-  
7 life programs; and

8 (C) consult, and to the maximum extent  
9 practicable, collaborate with State and local  
10 agencies, universities, and other public and pri-  
11 vate entities regarding their research, moni-  
12 toring, and other efforts to address the impacts  
13 of global warming on wildlife and its habitat.

14 (3) INTEGRATION WITH OTHER FEDERAL AC-  
15 TIVITIES.—The Secretary, the Secretary of Agri-  
16 culture, and the Secretary of Commerce shall ensure  
17 that research and other activities carried out pursu-  
18 ant to this section are integrated with climate  
19 change program research and activities carried out  
20 pursuant to other Federal law.

21 (c) DETECTION OF CHANGES.—The Secretary, the  
22 Secretary of Agriculture, and the Secretary of Commerce  
23 shall each exercise authorities under other laws to carry  
24 out programs to detect changes in wildlife abundance, dis-

1 tribution, and behavior related to global warming, includ-  
2 ing—

3 (1) conducting species inventories on Federal  
4 lands and in marine areas within the exclusive eco-  
5 nomic zone of the United States; and

6 (2) establishing and implementing robust, co-  
7 ordinated monitoring programs.

8 **SEC. 7456. AUTHORIZATION OF APPROPRIATIONS.**

9 (a) IMPLEMENTATION OF NATIONAL STRATEGY.—Of  
10 the amounts appropriated to carry out this subchapter for  
11 each fiscal year—

12 (1) 45 percent are authorized to be made avail-  
13 able to Federal agencies to develop and implement  
14 the national strategy promulgated under section  
15 7454 in the administration of the Federal land sys-  
16 tems, of which—

17 (A) 35 percent shall be allocated to the  
18 Department of the Interior to—

19 (i) operate the National Global Warm-  
20 ing and Wildlife Science Center established  
21 under section 7455; and

22 (ii) carry out the policy set forth in  
23 section 7452 and implement the national  
24 strategy in the administration of the Na-  
25 tional Park System the National Wildlife

1           Refuge System, and on the Bureau of  
2           Land Management's public lands; and

3           (B) 10 percent shall be allocated to the  
4           Department of Agriculture to carry out the pol-  
5           icy set forth in section 7452 and implement the  
6           national strategy in the administration of the  
7           National Forest System;

8           (2) 25 percent are authorized to be made avail-  
9           able to Federal agencies to carry out the policy set  
10          forth in section 7452 and to implement the national  
11          strategy through fish and wildlife programs, other  
12          than for the operation and maintenance of Federal  
13          lands, of which—

14           (A) 10 percent shall be allocated to the  
15           Department of the Interior to fund endangered  
16           species, migratory bird, and other fish and wild-  
17           life programs administered by the United  
18           States Fish and Wildlife Service, other than op-  
19           erations and maintenance of the national wild-  
20           life refuges; and

21           (B) 15 percent shall be allocated to the  
22           Department of the Interior for implementation  
23           of cooperative grant programs benefitting wild-  
24           life including the Cooperative Endangered Spe-  
25           cies Fund, Private Stewardship Grants, the

1 North American Wetlands Conservation Act,  
2 the Multinational Species Conservation Fund,  
3 the Neotropical Migratory Bird Conservation  
4 Fund, and the National Fish Habitat Action  
5 Plan, and used for activities that assist wildlife  
6 and its habitat in adapting to the impacts of  
7 global warming; and

8 (3) 30 percent are authorized to be made avail-  
9 able for grants to States and Indian tribes through  
10 the State and tribal wildlife grants program author-  
11 ized under section 7461, to—

12 (A) carry out activities that assist wildlife  
13 and its habitat in adapting to the impacts of  
14 global warming in accordance with State com-  
15 prehensive wildlife conservation plans developed  
16 and approved under that program; and

17 (B) revise or supplement existing State  
18 comprehensive wildlife conservation plans as  
19 necessary to include specific strategies for as-  
20 sisting wildlife and its habitat in adapting to  
21 the impacts of global warming.

22 (b) AVAILABILITY.—

23 (1) IN GENERAL.—Funding is authorized to be  
24 made available to States and Indian tribes pursuant  
25 to this section subject to paragraphs (2) and (3).

1           (2) INITIAL 5-YEAR PERIOD.—During the 5-  
2           year period beginning on the effective date of this  
3           title, a State shall not be eligible to receive such  
4           funding unless the head of the State’s wildlife agen-  
5           cy has—

6                   (A) approved, and provided to the Sec-  
7                   retary, an explicit strategy to assist wildlife  
8                   populations in adapting to the impacts of global  
9                   warming; and

10                   (B) incorporated such strategy as a supple-  
11                   ment to the State’s comprehensive wildlife con-  
12                   servation plan.

13           (3) SUBSEQUENT PERIOD.—After such 5-year  
14           period, a State shall not be eligible to receive such  
15           funding unless the State has submitted to the Sec-  
16           retary, and the Secretary has approved, a revision to  
17           its comprehensive wildlife conservation plan that—

18                   (A) describes the impacts of global warm-  
19                   ing on the diversity and health of the State’s  
20                   wildlife populations and their habitat;

21                   (B) describes and prioritizes proposed con-  
22                   servation actions to assist wildlife populations  
23                   in adapting to such impacts;

1 (C) establishes programs for monitoring  
2 the impacts of global warming on wildlife popu-  
3 lations and their habitats; and

4 (D) establishes methods for assessing the  
5 effectiveness of conservation actions taken to  
6 assist wildlife populations in adapting to such  
7 impacts and for adapting such actions to re-  
8 spond appropriately to new information or  
9 changing conditions.

10 (c) INTENT OF CONGRESS.—It is the intent of Con-  
11 gress that funding provided to Federal agencies and  
12 States pursuant to this subchapter supplement, and not  
13 replace, existing sources of funding for wildlife conserva-  
14 tion.

15 **Subchapter C—State and Tribal Wildlife**  
16 **Grants Program**

17 **SEC. 7461. STATE AND TRIBAL WILDLIFE GRANTS PRO-**  
18 **GRAM.**

19 (a) AUTHORIZATION OF PROGRAM.—There is author-  
20 ized to be established a State and Tribal Wildlife Grants  
21 Program to be administered by the Secretary of the Inte-  
22 rior and to provide wildlife conservation grants to States  
23 and to the District of Columbia, Puerto Rico, Guam, the  
24 United States Virgin Islands, the Northern Mariana Is-  
25 lands, American Samoa, and federally recognized Indian

1 tribes for the planning, development, and implementation  
2 of programs for the benefit of wildlife and their habitat,  
3 including species that are not hunted or fished.

4 (b) ALLOCATION OF FUNDS.—

5 (1) IN GENERAL.—Of the amounts made avail-  
6 able to carry out this section for each fiscal year—

7 (A) 10 percent shall be for a competitive  
8 grant program for Indian tribes that are not  
9 subject to the remaining provisions of this sec-  
10 tion;

11 (B) of the amounts remaining after the ap-  
12 plication of subparagraph (A), and after the de-  
13 duction of the Secretary's administrative ex-  
14 penses to carry out this section—

15 (i) not more than one-half of 1 per-  
16 cent shall be allocated to each of the Dis-  
17 trict of Columbia and to the Common  
18 wealth of Puerto Rico; and

19 (ii) not more than one-fourth of 1 per-  
20 cent shall be allocated to each of Guam,  
21 American Samoa, the United States Virgin  
22 Islands, and the Commonwealth of the  
23 Northern Mariana Islands; and

1 (C) of the amount remaining after the ap-  
2 plication of subparagraphs (B) and (C), the sec-  
3 retary shall apportion among the States—

4 (i) one-third based on the ratio that  
5 the land area of each State bears to the  
6 total land area of all States; and

7 (ii) two-thirds based on the ratio that  
8 the population of each State bears to the  
9 total population of all States.

10 (2) ADJUSTMENTS.—The amounts apportioned  
11 under subparagraph (C) of paragraph (1) for a fis-  
12 cal year shall be adjusted equitably so that no State  
13 is apportioned under such subparagraph a sum that  
14 is—

15 (A) less than 1 percent of the amount  
16 available for apportionment under that subpara-  
17 graph that fiscal year; or

18 (B) more than 5 percent of such amount.

19 (c) COST SHARING.—

20 (1) PLAN DEVELOPMENT GRANTS.—The Fed-  
21 eral share of the costs of developing or revising a  
22 comprehensive wildlife conservation plan shall not  
23 exceed 75 percent of the total costs of developing or  
24 revising such plan.

1           (2) PLAN IMPLEMENTATION GRANTS.—The  
2 Federal share of the costs of implementing an activ-  
3 ity in an approved comprehensive wildlife conserva-  
4 tion plan carried out with a grant under this section  
5 shall not exceed 50 percent of the total costs of such  
6 activities.

7           (3) PROHIBITION ON USE OF FEDERAL  
8 FUNDS.—The non-Federal share of costs of an activ-  
9 ity carried out under this section shall not be paid  
10 with amounts derived from any Federal grant pro-  
11 gram.

12         (d) REQUIREMENT FOR PLAN.—

13           (1) IN GENERAL.—No State, territory, or other  
14 jurisdiction shall be eligible for a grant under this  
15 section unless it submits to the Secretary a com-  
16 prehensive wildlife conservation plan that—

17                     (A) complies with paragraph (2); and

18                     (B) considers the broad range of the State,  
19 territory, or other jurisdiction's wildlife and as-  
20 sociated habitats, with appropriate priority  
21 placed on those species with the greatest con-  
22 servation need and taking into consideration the  
23 relative level of funding available for the con-  
24 servation of those species.

1           (2) CONTENTS.—The comprehensive wildlife  
2 conservation plan must contain—

3           (A) information on the distribution and  
4 abundance of species of wildlife, including low  
5 and declining populations as the State, terri-  
6 tory, or other jurisdiction’s fish and wildlife  
7 agency considers appropriate, that are indic-  
8 ative of the diversity and health of the jurisdic-  
9 tion’s wildlife;

10          (B) the location and relative condition of  
11 key habitats and community types essential to  
12 conservation of species identified in subpara-  
13 graph (A);

14          (C) descriptions of problems which may  
15 adversely affect species identified in subpara-  
16 graph (A) or their habitats, and priority re-  
17 search and survey efforts needed to identify fac-  
18 tors that may assist in restoration and im-  
19 proved conservation of these species and habi-  
20 tats;

21          (D) descriptions of conservation actions  
22 proposed to conserve the identified species and  
23 habitats and priorities for implementing such  
24 actions;

1           (E) proposed plans for monitoring species  
2 identified in subparagraph (A) and their habi-  
3 tats, for monitoring the effectiveness of the con-  
4 servation actions proposed in subparagraph  
5 (D), and for adapting these conservation ac-  
6 tions to respond appropriately to new informa-  
7 tion or changing conditions;

8           (F) descriptions of procedures to review  
9 the comprehensive wildlife conservation plan at  
10 intervals not to exceed ten years;

11           (G) plans for coordinating the develop-  
12 ment, implementation, review, and revision of  
13 the comprehensive wildlife conservation plan  
14 with Federal, State, and local agencies and In-  
15 dian tribes that manage significant land and  
16 water areas within the jurisdiction or admin-  
17 ister programs that significantly affect the con-  
18 servation of identified species and habitats; and

19           (H) provisions for broad public participa-  
20 tion as an essential element of the development,  
21 revision, and implementation of the comprehen-  
22 sive wildlife conservation plan.

23       (e) SAVINGS CLAUSE.—State comprehensive wildlife  
24 strategies approved by the Secretary pursuant to previous  
25 congressional authorizations and appropriations Acts shall

1 remain in effect until such strategies expire or are revised  
2 in accordance with their terms. Except as specified in sec-  
3 tion 7456(b) with respect to funds made available under  
4 such section, conservation and education activities con-  
5 ducted or proposed to be conducted pursuant to such pre-  
6 viously approved strategies shall remain authorized.

7 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
8 are authorized to be appropriated such sums as are nec-  
9 essary to carry out this section.

## 10 **CHAPTER 5—OCEAN PROGRAMS**

### 11 **SEC. 7471. OCEAN POLICY, GLOBAL WARMING, AND ACIDI-** 12 **FICATION PROGRAM.**

13 (a) DEVELOPMENT AND IMPLEMENTATION.—

14 (1) IN GENERAL.—The Secretary of Commerce,  
15 shall, within two years after the date of enactment  
16 of this Act, and on the basis of the best available  
17 science, develop and implement a national strategy  
18 using existing authorities and the authority provided  
19 in this section to support coastal State and Federal  
20 agency efforts to—

21 (A) predict, plan for, and mitigate the im-  
22 pacts on ocean and coastal ecosystems from  
23 global warming, relative sea level rise and ocean  
24 acidification; and

1           (B) ensure the recovery, resiliency, and  
2           health of ocean and coastal ecosystems.

3           (2) CONSULTATION AND COMMENT.—Before  
4           and during the development of the national strategy,  
5           the Secretary shall—

6           (A) consult with the Secretary of the Inte-  
7           rior, the Administrator of the Environmental  
8           Protection Agency, the Regional Fishery Man-  
9           agement Councils, coastal States, Indian tribes,  
10          local governments, conservation organizations,  
11          scientists, and other interested stakeholders;  
12          and

13          (B) provide opportunities for public notice  
14          and comment.

15          (b) CONTENTS.—

16          (1) IN GENERAL.—The Secretary shall include  
17          in the national strategy prioritized goals and meas-  
18          ures to—

19          (A) incorporate climate change adaptation  
20          strategies into the planning and management of  
21          ocean and coastal programs and resources ad-  
22          ministered by the Department of Commerce;

23          (B) support restoration, protection, and  
24          enhancement of natural processes that minimize

1 the impacts of relative sea level rise, global  
2 warming, and ocean acidification;

3 (C) minimize the impacts of global warm-  
4 ing and ocean acidification on marine species  
5 and their habitats;

6 (D) identify, protect, and restore ocean  
7 and coastal habitats needed to build healthy  
8 and resilient ecosystems;

9 (E) support the development of climate  
10 change resiliency plans under the Coastal Zone  
11 Management Act of 1972 (16 U.S.C. 1451 et  
12 seq.);

13 (F) provide technical assistance and train-  
14 ing to other Federal agencies, States, local com-  
15 munities, universities, and other stakeholders;  
16 and

17 (G) identify additional research that is  
18 needed to better anticipate and plan for the im-  
19 pacts of global warming and ocean acidification  
20 on ocean and coastal resources.

21 (2) COORDINATION WITH OTHER PLANS.—In  
22 developing the national strategy, the Secretary  
23 shall—

24 (A) take into consideration research and  
25 information available in Federal, regional, and

1 State management and restoration plans and  
2 any other relevant reports and information; and

3 (B) encourage and take into account State  
4 and regional plans for protecting and restoring  
5 the health and resilience of ocean and coastal  
6 ecosystems.

7 (c) REVISION.—The Secretary shall revise the na-  
8 tional strategy not later than 5 years after its promulga-  
9 tion, and not later than every 10 years thereafter, to re-  
10 flect new information on the impacts of global warming,  
11 relative sea level rise, and acidification on ocean and coast-  
12 al ecosystems and their resources and advances in the de-  
13 velopment of strategies for adapting to or mitigating for  
14 such impacts.

15 (d) SCIENCE ADVISORY BOARD.—

16 (1) CONSULTATION.—The Secretary shall con-  
17 sult with the National Oceanic and Atmospheric Ad-  
18 ministration's Science Advisory Board in the devel-  
19 opment and implementation of the strategy.

20 (2) REVIEW INFORMATION.—The Science Advi-  
21 sory Board shall periodically—

22 (A) review new information on the impacts  
23 of global warming, relative sea level rise, and  
24 acidification on ocean and coastal ecosystems  
25 and their resources and advances in the devel-

1           opment of strategies for adapting to or miti-  
2           gating for such impacts; and

3           (B) provide that information to the Sec-  
4           retary.

5           (e) **AUTHORIZATION OF APPROPRIATIONS.**—There  
6 are authorized to be appropriated such sums as may be  
7 necessary to implement this section. Amounts appro-  
8 priated shall be used for the exclusive purpose of carrying  
9 out the activities specified in this section.

10          (f) **REPORT TO CONGRESS.**—Copies of the strategy  
11 and implementation plan and any updates shall be pro-  
12 vided to Congress.

13 **SEC. 7472. PLANNING FOR CLIMATE CHANGE IN THE**  
14 **COASTAL ZONE.**

15          (a) **IN GENERAL.**—The Coastal Zone Management  
16 Act of 1972 (16 U.S.C. 1451 et seq.) is amended by add-  
17 ing at the end the following:

18           “CLIMATE CHANGE RESILIENCY PLANNING

19          “SEC. 320. (a) **IN GENERAL.**—The Secretary shall  
20 establish consistent with the national policies set forth in  
21 section 303 a coastal climate change resiliency planning  
22 and response program to—

23           “(1) provide assistance to coastal states to vol-  
24 untarily develop coastal climate change resiliency  
25 plans pursuant to approved management programs  
26 approved under section 306, to minimize contribu-

1 tions to climate change and to prepare for and re-  
2 duce the negative consequences that may result from  
3 climate change in the coastal zone; and

4 “(2) provide financial and technical assistance  
5 and training to enable coastal states to implement  
6 plans developed pursuant to this section through  
7 coastal states’ enforceable policies.

8 “(b) GUIDELINES.—Within 180 days after the date  
9 of enactment of this section, the Secretary, in consultation  
10 with the coastal states, shall issue guidelines for the imple-  
11 mentation of the grant program established under sub-  
12 section (c).

13 “(c) CLIMATE CHANGE RESILIENCY PLANNING  
14 GRANTS.—

15 “(1) IN GENERAL.—The Secretary, subject to  
16 the availability of appropriations, may make a grant  
17 to any coastal state for the purpose of developing cli-  
18 mate change resiliency plans pursuant to guidelines  
19 issued by the Secretary under subsection (b).

20 “(2) PLAN CONTENT.—A plan developed with a  
21 grant under this section shall include the following:

22 “(A) Identification of public facilities and  
23 public services, coastal resources of national  
24 significance, coastal waters, energy facilities, or  
25 other water uses located in the coastal zone

1 that are likely to be impacted by climate  
2 change.

3 “(B) Adaptive management strategies for  
4 land use to respond or adapt to changing envi-  
5 ronmental conditions, including strategies to  
6 protect biodiversity and establish habitat buffer  
7 zones, migration corridors, and climate refugia.

8 “(C) Requirements to initiate and main-  
9 tain long-term monitoring of environmental  
10 change to assess coastal zone resiliency and to  
11 adjust when necessary adaptive management  
12 strategies and new planning guidelines to attain  
13 the policies under section 303.

14 “(3) STATE HAZARD MITIGATION PLANS.—  
15 Plans developed with a grant under this section shall  
16 be consistent with State hazard mitigation plans de-  
17 veloped under State or Federal law.

18 “(4) ALLOCATION.—Grants under this section  
19 shall be available only to coastal states with manage-  
20 ment programs approved by the Secretary under sec-  
21 tion 306 and shall be allocated among such coastal  
22 states in a manner consistent with regulations pro-  
23 mulgated pursuant to section 306(c).

24 “(5) PRIORITY.—In the awarding of grants  
25 under this subsection the Secretary may give priority

1 to any coastal state that has received grant funding  
2 to develop program changes pursuant to paragraphs  
3 (1), (2), (3), (5), (6), (7), and (8) of section 309(a).

4 “(6) TECHNICAL ASSISTANCE.—The Secretary  
5 may provide technical assistance to a coastal state  
6 consistent with section 310 to ensure the timely de-  
7 velopment of plans supported by grants awarded  
8 under this subsection.

9 “(7) FEDERAL APPROVAL.—In order to be eligi-  
10 ble for a grant under subsection (d), a coastal state  
11 must have its plan developed under this section ap-  
12 proved by the Secretary.

13 “(d) COASTAL RESILIENCY PROJECT GRANTS.—

14 “(1) IN GENERAL.—The Secretary, subject to  
15 the availability of appropriations, may make grants  
16 to any coastal state that has a climate change resil-  
17 iency plan approved under subsection (c)(7), in  
18 order to support projects that implement strategies  
19 contained within such plans.

20 “(2) PROGRAM REQUIREMENTS.—The Sec-  
21 retary within 90 days after approval of the first plan  
22 approved under subsection (c)(7), shall publish in  
23 the Federal Register requirements regarding appli-  
24 cations, allocations, eligible activities, and all terms  
25 and conditions for grants awarded under this sub-

1 section. No less than 30 percent of the funds appro-  
2 priated in any fiscal year for grants under this sub-  
3 section shall be awarded through a merit-based com-  
4 petitive process.

5 “(3) ELIGIBLE ACTIVITIES.—The Secretary  
6 may award grants to coastal states to implement  
7 projects in the coastal zone to address stress factors  
8 in order to improve coastal climate change resiliency,  
9 including the following:

10 “(A) Activities to address physical disturb-  
11 ances within the coastal zone, especially activi-  
12 ties related to public facilities and public serv-  
13 ices, tourism, sedimentation, and other factors  
14 negatively impacting coastal waters, and fish-  
15 eries-associated habitat destruction or alter-  
16 ation.

17 “(B) Monitoring, control, or eradication of  
18 disease organisms and invasive species.

19 “(C) Activities to address the loss, deg-  
20 radation or fragmentation of wildlife habitat  
21 through projects to establish marine and terres-  
22 trial habitat buffers, wildlife refugia or net-  
23 works thereof, and preservation of migratory  
24 wildlife corridors and other transition zones.

1           “(D) Implementation of projects to reduce,  
2           mitigate, or otherwise address likely impacts  
3           caused by natural hazards in the coastal zone,  
4           including sea level rise, coastal inundation,  
5           coastal erosion and subsidence, severe weather  
6           events such as cyclonic storms, tsunamis and  
7           other seismic threats, and fluctuating Great  
8           Lakes water levels.

9           “(E) Provide technical training and assist-  
10          ance to local coastal policy makers to increase  
11          awareness of science, management, and tech-  
12          nology information related to climate change  
13          and adaptation strategies.”.

14          (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
15          318(a) of the Coastal Zone Management Act of 1972 (16  
16          U.S.C. 1464) is further amended by adding at the end  
17          the following:

18                 “(4) for grants under section 320(c) and (d),  
19                 such sums as are necessary.”.

20          (c) INTENT OF CONGRESS.—Nothing in this section  
21          shall be construed to require any coastal state to amend  
22          or modify its approved management program pursuant to  
23          section 306(e) of the Coastal Zone Management Act of  
24          1972 (16 U.S.C. 1455(e)), or to extend the enforceable  
25          policies of a coastal state beyond the coastal zone as iden-

1 tified in the coastal state’s approved management pro-  
2 gram.

3 **SEC. 7473. ENHANCING CLIMATE CHANGE PREDICTIONS.**

4 (a) **SHORT TITLE.**—This section may be cited as the  
5 “National Integrated Coastal and Ocean Observation Act  
6 of 2007”.

7 (b) **PURPOSES.**—The purposes of this section are the  
8 following:

9 (1) Establish a National Integrated Coastal and  
10 Ocean Observation System comprised of Federal and  
11 non-Federal components, coordinated at the national  
12 level by the National Ocean Research Leadership  
13 Council and at the regional level by a network of Re-  
14 gional Information Coordination Entities, that in-  
15 cludes in situ, remote, and other coastal and ocean  
16 observations, technologies, and data management  
17 and communication systems, to gather specific coast-  
18 al and ocean data variables and to ensure the timely  
19 dissemination and availability of usable observation  
20 data—

21 (A) to support national defense, marine  
22 commerce, energy production, scientific re-  
23 search, ecosystem-based marine and coastal re-  
24 source management, weather and marine fore-

1           casting, public safety and public outreach train-  
2           ing and education; and

3                   (B) to promote greater public awareness  
4           and stewardship of the Nation’s ocean, coastal,  
5           and Great Lakes resources and the general  
6           public welfare.

7           (2) Improve the Nation’s capability to measure,  
8           track, explain, and predict events related directly  
9           and indirectly to weather and climate change, nat-  
10          ural climate variability, and interactions between the  
11          oceanic and atmospheric environments, including the  
12          Great Lakes.

13           (3) Authorize activities to promote basic and  
14          applied research to develop, test, and deploy innova-  
15          tions and improvements in coastal and ocean obser-  
16          vation technologies, modeling systems, and other sci-  
17          entific and technological capabilities to improve our  
18          conceptual understanding of weather and climate,  
19          ocean atmosphere dynamics, global climate change,  
20          and physical, chemical, and biological dynamics of  
21          the ocean and coastal and Great Lakes environ-  
22          ments.

23          (c) DEFINITIONS.—In this section:

24                   (1) COUNCIL.—The term “Council” means the  
25          National Ocean Research Leadership Council re-

1       ferred to in section 7902 of title 10, United States  
2       Code.

3           (2) ADMINISTRATOR.—The term “Adminis-  
4       trator” means the Administrator of the National  
5       Oceanic and Atmospheric Administration.

6           (3) FEDERAL ASSETS.—The term “Federal as-  
7       sets” means all relevant nonclassified civilian coastal  
8       and ocean observations, technologies, and related  
9       modeling, research, data management, basic and ap-  
10      plied technology research and development, and pub-  
11      lic education and outreach programs, that are man-  
12      aged by member agencies of the Council.

13          (4) INTERAGENCY WORKING GROUP.—The term  
14      “Interagency Working Group” means the Inter-  
15      agency Working Group on Ocean Observations as es-  
16      tablished by the U.S. Ocean Policy Committee Sub-  
17      committee on Ocean Science and Technology pursu-  
18      ant to Executive Order 13366 signed December 17,  
19      2004.

20          (5) NON-FEDERAL ASSETS.—The term “non-  
21      Federal assets” means all relevant coastal and ocean  
22      observations, technologies, related basic and applied  
23      technology research and development, and public  
24      education and outreach programs that are integrated  
25      into the System and are managed through States,

1 regional organizations, universities, nongovernmental  
2 organizations, or the private sector.

3 (6) REGIONAL INFORMATION COORDINATION  
4 ENTITIES.—

5 (A) IN GENERAL.—The term “Regional In-  
6 formation Coordination Entity”, subject to sub-  
7 paragraphs (B) and (C), means an organiza-  
8 tional body that is certified or established by  
9 the lead Federal agency designated in sub-  
10 section (d)(3)(C)(iii) and coordinating State,  
11 Federal, local, and private interests at a re-  
12 gional level with the responsibility of engaging  
13 the private and public sectors in designing, op-  
14 erating, and improving regional coastal and  
15 ocean observing systems in order to ensure the  
16 provision of data and information that meet the  
17 needs of user groups from the respective re-  
18 gions.

19 (B) INCLUDED ASSOCIATIONS.—Such term  
20 includes Regional Associations as described by  
21 the System Plan.

22 (C) LIMITATION.—Nothing in this section  
23 shall be construed to invalidate existing certifi-  
24 cations, contracts, or agreements between Re-

1 regional Associations and other elements of the  
2 System.

3 (7) SYSTEM.—The term “System” means the  
4 National Integrated Coastal and Ocean Observation  
5 System established under subsection (d).

6 (8) SYSTEM PLAN.—The term “System Plan”  
7 means the plan contained in the document entitled  
8 “Ocean.US publication #9, The First Integrated  
9 Ocean Observing System (IOOS) Development  
10 Plan”.

11 (d) NATIONAL INTEGRATED COASTAL AND OCEAN  
12 OBSERVING SYSTEM.—

13 (1) ESTABLISHMENT.—The President, acting  
14 through the Council, shall establish a National Inte-  
15 grated Coastal and Ocean Observation System to  
16 fulfill the purposes set forth in subsection (b) and  
17 the System plan and to fulfill the Nation’s inter-  
18 national obligations to contribute to the global earth  
19 observation system of systems and the global ocean  
20 observing system.

21 (2) SUPPORT OF PURPOSES.—The head of each  
22 agency that is a member of the Interagency Working  
23 Group shall support the purposes of this section.

24 (3) AVAILABILITY OF DATA.—The head of each  
25 Federal agency that has administrative jurisdiction

1 over a Federal asset shall make available data that  
2 are produced by that asset and that are not other-  
3 wise restricted for integration, management, and dis-  
4 semination by the System.

5 (4) ENHANCING ADMINISTRATION AND MAN-  
6 AGEMENT.—The head of each Federal agency that  
7 has administrative jurisdiction over a Federal asset  
8 may take appropriate actions to enhance internal  
9 agency administration and management to better  
10 support, integrate, finance, and utilize observation  
11 data, products, and services developed under this  
12 section to further its own agency mission and re-  
13 sponsibilities.

14 (5) PARTICIPATION IN REGIONAL INFORMATION  
15 COORDINATION ENTITY.—The head of each Federal  
16 agency that has administrative jurisdiction over a  
17 Federal asset may participate in regional informa-  
18 tion coordination entity activities.

19 (6) NON-FEDERAL ASSETS.—Non-Federal as-  
20 sets shall be coordinated by the Interagency Work-  
21 ing Group or by Regional Information Coordination  
22 Entities.

23 (e) POLICY OVERSIGHT, ADMINISTRATION, AND RE-  
24 GIONAL COORDINATION.—

1           (1) NATIONAL OCEAN RESEARCH LEADERSHIP  
2           COUNCIL.—The National Ocean Research Leader-  
3           ship Council shall be responsible for establishing  
4           broad coordination and long-term operations plans,  
5           policies, protocols, and standards for the System  
6           consistent with the policies, goals, and objectives  
7           contained in the System Plan, and coordination of  
8           the System with other earth observing activities.

9           (2) INTERAGENCY WORKING GROUP.—The  
10          Interagency Working Group shall, with respect to  
11          the System, be responsible for—

12                 (A) implementation of operations plans  
13                 and policies developed by the Council;

14                 (B) development of and transmittal to  
15                 Congress at the time of submission of the  
16                 President’s annual budget request an annual  
17                 coordinated, comprehensive System budget;

18                 (C) identification of gaps in observation  
19                 coverage or needs for capital improvements of  
20                 both Federal assets and non-Federal assets;

21                 (D) establishment of data management  
22                 and communication protocols and standards;

23                 (E) establishment of required observation  
24                 data variables;

1           (F) development of certification standards  
2           for all non-Federal assets or Regional Informa-  
3           tion Coordination Entities to be eligible for in-  
4           tegration into the System;

5           (G) subject to the availability of appropria-  
6           tions, establish through one or more partici-  
7           pating Federal agencies, in consultation with  
8           the System Advisory Committee established  
9           under paragraph (5), a competitive matching  
10          grant or other program to promote research  
11          and development of innovative observation tech-  
12          nologies including testing and field trials; and

13          (H) periodically review and recommend to  
14          the Council revisions to the System Plan.

15          (3) LEAD FEDERAL AGENCY.—The Adminis-  
16          trator shall function as the lead Federal agency for  
17          the System. The Administrator may establish an  
18          Interagency Program Coordinating Office to facili-  
19          tate the Administrator’s responsibilities as the lead  
20          Federal agency for System oversight and manage-  
21          ment. The Administrator shall—

22                 (A) implement policies, protocols, and  
23                 standards established by the Council and dele-  
24                 gated by the Interagency Working Group;

1 (B) promulgate regulations to integrate  
2 the participation of non-Federal assets into the  
3 System and enter into and oversee contracts  
4 and agreements with Regional Information Co-  
5 ordination Entities to effect this purpose;

6 (C) implement a competitive funding proc-  
7 ess for the purpose of assigning contracts and  
8 agreements to Regional Information Coordina-  
9 tion Entities;

10 (D) certify or establish Regional Informa-  
11 tion Coordination Entities to coordinate State,  
12 Federal, local, and private interests at a re-  
13 gional level with the responsibility of engaging  
14 private and public sectors in designing, oper-  
15 ating, and improving regional coastal and ocean  
16 observing systems in order to ensure the provi-  
17 sion of data and information that meet the  
18 needs of user groups from the respective re-  
19 gions;

20 (E) formulate a process by which gaps in  
21 observation coverage or needs for capital im-  
22 provements of Federal assets and non-Federal  
23 assets of the System can be identified by the  
24 Regional Information Coordination Entities, the  
25 Administrator, or other members of the System

1 and transmitted to the Interagency Working  
2 Group;

3 (F) be responsible for the coordination,  
4 storage, management, and dissemination of ob-  
5 servation data gathered through the System to  
6 all end-user communities;

7 (G) implement a program of public edu-  
8 cation and outreach to improve public aware-  
9 ness of global climate change and effects on the  
10 ocean, coastal, and Great Lakes environment;  
11 and

12 (H) report annually to the Council through  
13 the Interagency Working Group on the accom-  
14 plishments, operational needs, and performance  
15 of the System to achieve the purposes of this  
16 title and the System Plan.

17 (4) REGIONAL INFORMATION COORDINATION  
18 ENTITY.—To be certified or established under para-  
19 graph (3)(D), a Regional Information Coordination  
20 Entity must be certified or established by contract  
21 or agreement by the Administrator, and must agree  
22 to—

23 (A) gather required System observation  
24 data and other requirements specified under  
25 this section and the System plan;

1 (B) identify gaps in observation coverage  
2 or needs for capital improvements of Federal  
3 assets and non-Federal assets of the System,  
4 and transmit such information to the Inter-  
5 agency Working Group via the Administrator;

6 (C) demonstrate an organizational struc-  
7 ture and strategic operational plan to ensure  
8 the efficient and effective administration of pro-  
9 grams and assets to support daily data observa-  
10 tions for integration into the System;

11 (D) comply with all financial oversight re-  
12 quirements established by the Administrator,  
13 including requirements relating to audits; and

14 (E) demonstrate a capability to work with  
15 other governmental and nongovernmental enti-  
16 ties at all levels to identify and provide informa-  
17 tion products of the System for multiple users  
18 within the service area of the Regional Informa-  
19 tion Coordination Entities and otherwise.

20 (5) SYSTEM ADVISORY COMMITTEE.—

21 (A) IN GENERAL.—The Administrator  
22 shall establish a System Advisory Committee,  
23 which shall provide advice as may be requested  
24 by the Administrator or the Interagency Work-  
25 ing Group.

1 (B) PURPOSE.—The purpose of the Sys-  
2 tem Advisory Committee is to advise the Ad-  
3 ministrator and the Interagency Working Group  
4 on—

5 (i) administration, operation, manage-  
6 ment, and maintenance of the System, in-  
7 cluding integration of Federal and non-  
8 Federal assets and data management and  
9 communication aspects of the System, and  
10 fulfillment of the purposes specified under  
11 subsection (b);

12 (ii) expansion and periodic moderniza-  
13 tion and upgrade of technology components  
14 of the System;

15 (iii) identification of end-user commu-  
16 nities, their needs for information provided  
17 by the System, and the System's effective-  
18 ness in disseminating information to end-  
19 user communities and the general public;  
20 and

21 (iv) any other purpose identified by  
22 the Administrator or the Interagency  
23 Working Group.

24 (C) MEMBERS.—

1 (i) IN GENERAL.—The System Advi-  
2 sory Committee shall be composed of mem-  
3 bers appointed by the Administrator. Mem-  
4 bers shall be qualified by education, train-  
5 ing, and experience to evaluate scientific  
6 and technical information related to the  
7 design, operation, maintenance, or use of  
8 the System, or use of data products pro-  
9 vided through the System.

10 (ii) TERMS OF SERVICE.—Members  
11 shall be appointed for 3-year terms, renew-  
12 able once. A vacancy appointment shall be  
13 for the remainder of the unexpired term of  
14 the vacancy, and an individual so ap-  
15 pointed may subsequently be appointed for  
16 2 full 3-year terms if the remainder of the  
17 unexpired term is less than one year.

18 (iii) CHAIRPERSON.—The Adminis-  
19 trator shall designate a chairperson from  
20 among the members of the System Advi-  
21 sory Committee.

22 (iv) APPOINTMENT.—Members of the  
23 System Advisory Committee shall be ap-  
24 pointed as special Government employees

1 for purposes of section 202(a) of title 18,  
2 United States Code.

3 (D) ADMINISTRATIVE PROVISIONS.—

4 (i) REPORTING.—The System Advi-  
5 sory Committee shall report to the Admin-  
6 istrator and the Interagency Working  
7 Group, as appropriate.

8 (ii) ADMINISTRATIVE SUPPORT.—The  
9 Administrator shall provide administrative  
10 support to the System Advisory Com-  
11 mittee.

12 (iii) MEETINGS.—The System Advi-  
13 sory Committee shall meet at least once  
14 each year, and at other times at the call of  
15 the Administrator, the Interagency Work-  
16 ing Group, or the chairperson.

17 (iv) COMPENSATION AND EX-  
18 PENSES.—Members of the System Advi-  
19 sory Committee shall not be compensated  
20 for service on that Committee, but may be  
21 allowed travel expenses, including per diem  
22 in lieu of subsistence, in accordance with  
23 subchapter I of chapter 57 of title 5,  
24 United States Code.

1 (v) EXPIRATION.—Section 14 of the  
2 Federal Advisory Committee Act (5 U.S.C.  
3 App.) shall not apply to the System Advi-  
4 sory Committee.

5 (6) CIVIL LIABILITY.—For purposes of deter-  
6 mining liability arising from the dissemination and  
7 use of observation data gathered pursuant to this  
8 section, any non-Federal asset or Regional Informa-  
9 tion Coordination Entity that is certified under  
10 paragraph (3)(D) and that is participating in the  
11 System shall be considered to be part of the Na-  
12 tional Oceanic and Atmospheric Administration. Any  
13 employee of such a non-Federal asset or Regional  
14 Information Coordination Entity, while operating  
15 within the scope of his or her employment in car-  
16 rying out the purposes of this section, with respect  
17 to tort liability, is deemed to be an employee of the  
18 Federal Government.

19 (f) INTERAGENCY FINANCING, GRANTS, CONTRACTS,  
20 AND AGREEMENTS.—

21 (1) IN GENERAL.—The member departments  
22 and agencies of the Council, subject to the avail-  
23 ability of appropriations, may participate in inter-  
24 agency financing and share, transfer, receive, obli-  
25 gate, and expend funds appropriated to any member

1 agency for the purposes of carrying out any adminis-  
2 trative or programmatic project or activity to further  
3 the purposes of this section, including support for  
4 the Interagency Working Group, the Interagency Co-  
5 ordinating Program Office, a common infrastruc-  
6 ture, and integration to expand or otherwise enhance  
7 the System.

8 (2) JOINT CENTERS AND AGREEMENTS.—Mem-  
9 ber Departments and agencies of the Council shall  
10 have the authority to create, support, and maintain  
11 joint centers, and to enter into and perform such  
12 contracts, leases, grants, and cooperative agreements  
13 as may be necessary to carry out the purposes of  
14 this section and fulfillment of the System Plan.

15 (g) APPLICATION WITH OTHER LAWS.—Nothing in  
16 this section supersedes or limits the authority of any agen-  
17 cy to carry out its responsibilities and missions under  
18 other laws.

19 (h) REPORT TO CONGRESS.—

20 (1) IN GENERAL.—Not later than two years  
21 after the date of enactment of this section, the Ad-  
22 ministrator through the Council shall submit to Con-  
23 gress a report that describes the status of the Sys-  
24 tem and progress made to achieve the purposes of

1 this section and the goals identified under the Sys-  
2 tem Plan.

3 (2) CONTENTS.—The report shall include dis-  
4 cussion of the following:

5 (A) Identification of Federal and non-Fed-  
6 eral assets as determined by the Council that  
7 have been integrated into the System, including  
8 assets essential to the gathering of required ob-  
9 servation data variables necessary to meet the  
10 respective missions of Council agencies.

11 (B) A review of procurements, planned or  
12 initiated, by each Council agency to enhance,  
13 expand, or modernize the observation capabili-  
14 ties and data products provided by the System,  
15 including data management and communication  
16 subsystems.

17 (C) An assessment regarding activities to  
18 integrate Federal and non-Federal assets, na-  
19 tionally and on the regional level, and discus-  
20 sion of the performance and effectiveness of Re-  
21 gional Information Coordination Entities to co-  
22 ordinate regional observation operations.

23 (D) An evaluation of progress made by the  
24 Council to achieve the purposes of this section  
25 and the goals identified under the System Plan.

1           (E) Recommendations for operational im-  
2           provements to enhance the efficiency, accuracy,  
3           and overall capability of the System.

4           (3) BIENNIAL UPDATE.—Two years after the  
5           transmittal of the initial report prepared pursuant to  
6           this subsection and biennially thereafter, the Admin-  
7           istrator, through the Council, shall submit to Con-  
8           gress an update of the initial report.

9           (i) PUBLIC-PRIVATE USE POLICY.—The Council  
10          shall develop a policy within 6 months after the date of  
11          the enactment of this section that defines processes for  
12          making decisions about the roles of the Federal Govern-  
13          ment, the States, Regional Information Coordination En-  
14          tities, the academic community, and the private sector in  
15          providing to end-user communities environmental informa-  
16          tion, products, technologies, and services related to the  
17          System. The Council shall publish the policy in the Fed-  
18          eral Register for public comment for a period not less than  
19          60 days. Nothing in this subsection shall be construed to  
20          require changes in policy in effect on the date of the enact-  
21          ment of this Act.

22          (j) INDEPENDENT COST ESTIMATE.—The Inter-  
23          agency Working Group, through the Administrator and  
24          the Director of the National Science Foundation, shall ob-  
25          tain within one year after the date of the enactment of

1 this section an independent cost estimate for operations  
2 and maintenance of existing Federal assets of the System,  
3 and planned or anticipated acquisition, operation, and  
4 maintenance of new Federal assets for the System, includ-  
5 ing operation facilities, observation equipment, modeling  
6 and software, data management and communication, and  
7 other essential components. The independent cost estimate  
8 shall be transmitted unabridged and without revision by  
9 the Administrator to Congress.

10 (k) INTENT OF CONGRESS.—It is the intent of Con-  
11 gress that funding provided to agencies of the Council to  
12 implement this section shall supplement, and not replace,  
13 existing sources of funding for other programs. It is the  
14 further intent of Congress that agencies of the Council  
15 shall not enter into contracts or agreements for the devel-  
16 opment or procurement of new Federal assets for the Sys-  
17 tem that are estimated to be in excess of \$250,000,000  
18 in life-cycle costs without first providing adequate notice  
19 to Congress and opportunity for review and comment.

20 **Subtitle E—Royalties Under**  
21 **Offshore Oil and Gas Leases**

22 **SEC. 7501. SHORT TITLE.**

23 This subtitle may be cited as the “Royalty Relief for  
24 American Consumers Act of 2007”.

1 **SEC. 7502. PRICE THRESHOLDS FOR ROYALTY SUSPENSION**  
2 **PROVISIONS.**

3 The Secretary of the Interior shall agree to a request  
4 by any lessee to amend any lease issued for any Central  
5 and Western Gulf of Mexico tract during the period of  
6 January 1, 1998, through December 31, 1999, to incor-  
7 porate price thresholds applicable to royalty suspension  
8 provisions, that are equal to or less than the price thresh-  
9 olds described in clauses (v) through (vii) of section  
10 8(a)(3)(C) of the Outer Continental Shelf Lands Act (43  
11 U.S.C. 1337(a)(3)(C)). Any amended lease shall impose  
12 the new or revised price thresholds effective October 1,  
13 2006. Existing lease provisions shall prevail through Sep-  
14 tember 30, 2006.

15 **SEC. 7503. CLARIFICATION OF AUTHORITY TO IMPOSE**  
16 **PRICE THRESHOLDS FOR CERTAIN LEASE**  
17 **SALES.**

18 Congress reaffirms the authority of the Secretary of  
19 the Interior under section 8(a)(1)(H) of the Outer Conti-  
20 nental Shelf Lands Act (43 U.S.C. 1337(a)(1)(H)) to  
21 vary, based on the price of production from a lease, the  
22 suspension of royalties under any lease subject to section  
23 304 of the Outer Continental Shelf Deep Water Royalty  
24 Relief Act (Public Law 104–58; 43 U.S.C. 1337 note).

1 **SEC. 7504. ELIGIBILITY FOR NEW LEASES AND THE TRANS-**  
2 **FER OF LEASES; CONSERVATION OF RE-**  
3 **SOURCES FEES.**

4 (a) ISSUANCE OF NEW LEASES.—

5 (1) IN GENERAL.—The Secretary shall not  
6 issue any new lease that authorizes the production  
7 of oil or natural gas in the Gulf of Mexico under the  
8 Outer Continental Shelf Lands Act (43 U.S.C. 1331  
9 et seq.) to a person described in paragraph (2) un-  
10 less—

11 (A) the person has renegotiated each cov-  
12 ered lease with respect to which the person is  
13 a lessee, to modify the payment responsibilities  
14 of the person to include price thresholds that  
15 are equal to or less than the price thresholds  
16 described in clauses (v) through (vii) of section  
17 8(a)(3)(C) of the Outer Continental Shelf  
18 Lands Act (43 U.S.C. 1337(a)(3)(C)); or

19 (B) the person has—

20 (i) paid all fees established by the  
21 Secretary under subsection (b) that are  
22 due with respect to each covered lease for  
23 which the person is a lessee; or

24 (ii) entered into an agreement with  
25 the Secretary under which the person is  
26 obligated to pay such fees.

1           (2) PERSONS DESCRIBED.—A person referred  
2 to in paragraph (1) is a person that—

3           (A) is a lessee that—

4                 (i) holds a covered lease on the date  
5 on which the Secretary considers the  
6 issuance of the new lease; or

7                 (ii) was issued a covered lease before  
8 the date of enactment of this Act, but  
9 transferred the covered lease to another  
10 person or entity (including a subsidiary or  
11 affiliate of the lessee) after the date of en-  
12 actment of this Act; or

13           (B) any other person or entity who has  
14 any direct or indirect interest in, or who derives  
15 any benefit from, a covered lease;

16           (3) MULTIPLE LESSEES.—

17           (A) IN GENERAL.—For purposes of para-  
18 graph (1), if there are multiple lessees that own  
19 a share of a covered lease, the Secretary may  
20 implement separate agreements with any lessee  
21 with a share of the covered lease that modifies  
22 the payment responsibilities with respect to the  
23 share of the lessee to include price thresholds  
24 that are equal to or less than the price thresh-  
25 olds described in clauses (v) through (vii) of

1 section 8(a)(3)(C) of the Outer Continental  
2 Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)).

3 (B) TREATMENT OF SHARE AS COVERED  
4 LEASE.—Beginning on the effective date of an  
5 agreement under subparagraph (A), any share  
6 subject to the agreement shall not constitute a  
7 covered lease with respect to any lessees that  
8 entered into the agreement.

9 (b) CONSERVATION OF RESOURCES FEES.—

10 (1) IN GENERAL.—Not later than 60 days after  
11 the date of enactment of this Act, the Secretary of  
12 the Interior by regulation shall establish—

13 (A) a conservation of resources fee for pro-  
14 ducing Federal oil and gas leases in the Gulf of  
15 Mexico; and

16 (B) a conservation of resources fee for  
17 nonproducing Federal oil and gas leases in the  
18 Gulf of Mexico.

19 (2) PRODUCING LEASE FEE TERMS.—The fee  
20 under paragraph (1)(A)—

21 (A) subject to subparagraph (C), shall  
22 apply to covered leases that are producing  
23 leases;

1 (B) shall be set at \$9 per barrel for oil and  
2 \$1.25 per million Btu for gas, respectively, in  
3 2005 dollars; and

4 (C) shall apply only to production of oil or  
5 gas occurring—

6 (i) in any calendar year in which the  
7 arithmetic average of the daily closing  
8 prices for light sweet crude oil on the New  
9 York Mercantile Exchange (NYMEX) ex-  
10 ceeds \$34.73 per barrel for oil and \$4.34  
11 per million Btu for gas in 2005 dollars;  
12 and

13 (ii) on or after October 1, 2006.

14 (3) NONPRODUCING LEASE FEE TERMS.—The  
15 fee under paragraph (1)(B)—

16 (A) subject to subparagraph (C), shall  
17 apply to leases that are nonproducing leases;

18 (B) shall be set at \$3.75 per acre per year  
19 in 2005 dollars; and

20 (C) shall apply on and after October 1,  
21 2006.

22 (4) TREATMENT OF RECEIPTS.—Amounts re-  
23 ceived by the United States as fees under this sub-  
24 section shall be treated as offsetting receipts.

1           (c) TRANSFERS.—A lessee or any other person who  
2 has any direct or indirect interest in, or who derives a  
3 benefit from, a lease shall not be eligible to obtain by sale  
4 or other transfer (including through a swap, spinoff, serv-  
5 icing, or other agreement) any covered lease, the economic  
6 benefit of any covered lease, or any other lease for the  
7 production of oil or natural gas in the Gulf of Mexico  
8 under the Outer Continental Shelf Lands Act (43 U.S.C.  
9 1331 et seq.), unless—

10           (1) the lessee or other person has—

11                   (A) renegotiated all covered leases of the  
12 lessee or other person; and

13                   (B) entered into an agreement with the  
14 Secretary to modify the terms of all covered  
15 leases of the lessee or other person to include  
16 limitations on royalty relief based on market  
17 prices that are equal to or less than the price  
18 thresholds described in clauses (v) through (vii)  
19 of section 8(a)(3)(C) of the Outer Continental  
20 Shelf Lands Act (43 U.S.C. 1337(a)(3)(C)); or

21           (2) the lessee or other person has—

22                   (A) paid all fees established by the Sec-  
23 retary under subsection (b) that are due with  
24 respect to each covered lease for which the per-  
25 son is a lessee; or

1 (B) entered into an agreement with the  
2 Secretary under which the person is obligated  
3 to pay such fees.

4 (d) DEFINITIONS.—In this section—

5 (1) COVERED LEASE.—The term “covered  
6 lease” means a lease for oil or gas production in the  
7 Gulf of Mexico that is—

8 (A) in existence on the date of enactment  
9 of this Act;

10 (B) issued by the Department of the Inte-  
11 rior under section 304 of the Outer Continental  
12 Shelf Deep Water Royalty Relief Act (43  
13 U.S.C. 1337 note; Public Law 104–58); and

14 (C) not subject to limitations on royalty re-  
15 lief based on market price that are equal to or  
16 less than the price thresholds described in  
17 clauses (v) through (vii) of section 8(a)(3)(C) of  
18 the Outer Continental Shelf Lands Act (43  
19 U.S.C. 1337(a)(3)(C)).

20 (2) LESSEE.—The term “lessee” includes any  
21 person or other entity that controls, is controlled by,  
22 or is in or under common control with, a lessee.

23 (3) SECRETARY.—The term “Secretary” means  
24 the Secretary of the Interior.

1 **SEC. 7505. REPEAL OF CERTAIN TAXPAYER SUBSIDIZED**  
2 **ROYALTY RELIEF FOR THE OIL AND GAS IN-**  
3 **DUSTRY.**

4 (a) REPEAL OF PROVISIONS OF ENERGY POLICY ACT  
5 OF 2005.—The following provisions of the Energy Policy  
6 Act of 2005 (Public Law 109–58) are repealed:

7 (1) Section 344 (42 U.S.C. 15904; relating to  
8 incentives for natural gas production from deep wells  
9 in shallow waters of the Gulf of Mexico).

10 (2) Section 345 (42 U.S.C. 15905; relating to  
11 royalty relief for deep water production in the Gulf  
12 of Mexico).

13 (b) PROVISIONS RELATING TO PLANNING AREAS  
14 OFFSHORE ALASKA.—Section 8(a)(3)(B) of the Outer  
15 Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(B))  
16 is amended by striking “and in the Planning Areas off-  
17 shore Alaska” after “West longitude”.

18 (c) PROVISIONS RELATING TO NAVAL PETROLEUM  
19 RESERVE IN ALASKA.—Section 107 of the Naval Petro-  
20 leum Reserves Production Act of 1976 (as transferred, re-  
21 designated, moved, and amended by section 347 of the En-  
22 ergy Policy Act of 2005 (119 Stat. 704)) is amended—

23 (1) in subsection (i) by striking paragraphs (2)  
24 through (6); and

25 (2) by striking subsection (k).

## 1   **Subtitle F—Additional Provisions**

### 2   **SEC. 7601. OIL SHALE COMMUNITY IMPACT ASSISTANCE.**

3       (a) ESTABLISHMENT OF FUND.—There is estab-  
4   lished on the books of the Treasury of the United States  
5   a separate account to be known as the Oil Shale Commu-  
6   nity Impact Assistance Fund (hereinafter in this section  
7   referred to as the “Fund”). The Fund shall be adminis-  
8   tered by the Secretary of the Interior acting through the  
9   Director of the Bureau of Land Management.

10       (b) CONTENTS.—

11           (1) IN GENERAL.—There shall be credited to  
12   the Fund—

13               (A) all amounts paid to the United States  
14               as bonus bids in connection with the award of  
15               commercial oil shale leases pursuant to section  
16               369(e) of the Energy Policy Act of 2005 (42  
17               U.S.C. 15927(e)); and

18               (B) an amount equal to 25 percent of the  
19               portion of the other amounts deposited into the  
20               Treasury pursuant to section 35(a) of the Min-  
21               eral Leasing Act (30 U.S.C. 191) with respect  
22               to such leases, that remains after deduction of  
23               all payments made pursuant to of such section.

24           (2) TERMINATION OF CREDITING OF ROYAL-  
25   TIES.—Paragraph (1)(B) shall not apply to royalties

1 received by the United States under a commercial oil  
2 shale lease after the end of the 10-year period begin-  
3 ning on the date on which the first amount of roy-  
4 alty under such lease is paid to the United States.

5 (c) DISTRIBUTION.—

6 (1) IN GENERAL.—The Secretary, subject to  
7 the availability of appropriations, shall use amounts  
8 in the Fund to annually pay to each county in which  
9 is located land subject to a commercial oil shale  
10 lease referred to in subsection (b)(1) an amount  
11 equal to the amount credited to the Fund during the  
12 preceding year pursuant to section (b) with respect  
13 to such lease. If such land is located in more than  
14 one county, the Secretary shall allocate such pay-  
15 ment among such counties on the basis of the rel-  
16 ative amount of lands subject to the lease within  
17 each such county.

18 (2) USE OF PAYMENT.—Amounts paid to a  
19 county under this subsection shall be used by the  
20 county for the planning, construction, and mainte-  
21 nance of public facilities and the provision of public  
22 services.

23 **SEC. 7602. ADDITIONAL NOTICE REQUIREMENTS.**

24 (a) PERMITTEES.—At least 45 days before offering  
25 lands for lease pursuant to section 17(f) of the Mineral

1 Leasing Act (30 U.S.C. 226(f)), the Secretary of the Inte-  
2 rior shall provide notice of the proposed leasing activity  
3 in writing to the holders of special recreation permits for  
4 commercial use, competitive events, and other organized  
5 activities on the lands being offered for lease.

6 (b) CONSERVATION EASEMENT HOLDERS.—

7 (1) If the holder of a conservation easement or  
8 similar property interest in the surface estate of  
9 lands eligible for leasing under the Mineral Leasing  
10 Act has informed the Secretary of the Interior of the  
11 existence of such property interest, the Secretary  
12 shall treat such holder as a surface estate owner for  
13 purposes of section 7221(d) of this title.

14 (2) As soon as possible after the date of enact-  
15 ment of this Act, the Secretary of the Interior shall  
16 establish a means for holders of property interests  
17 described in paragraph (1) to provide notice of such  
18 interests, and shall inform the public regarding such  
19 means.

20 **SEC. 7603. DAVIS-BACON ACT.**

21 All laborers and mechanics employed by contractors  
22 and subcontractors on construction, repair, or alteration  
23 projects that are funded in whole or in part or otherwise  
24 authorized under sections 7304 or 7306 shall be paid  
25 wages at rates not less than those prevailing on similar

1 construction in the locality, as determined by the Sec-  
2 retary of Labor in accordance with subchapter IV of chap-  
3 ter 31 of title 40, United States Code. The Secretary of  
4 Labor shall, with respect to the labor standards in this  
5 title, have the authority and functions set forth in Reorga-  
6 nization Plan Numbered 14 of 1950 (15 F.R. 3176; 5  
7 U.S.C. App.) and section 3145 of title 40, United States  
8 Code.

9 **SEC. 7604. ROAN PLATEAU, COLORADO.**

10 (a) LEASES FOR TOP OF PLATEAU.—

11 (1) PROHIBITION.—The Secretary of the Inte-  
12 rior shall include in each lease under the Mineral  
13 Leasing Act (30 U.S.C. 181 et seq.) for lands to  
14 which this subsection applies a prohibition of surface  
15 occupancy for purposes of exploration for or develop-  
16 ment of oil or gas.

17 (2) APPLICATION.—This subsection applies to  
18 all Federal lands in Colorado that were formerly  
19 designated as Naval Oil Shale Reserves 1 and 3 that  
20 are located within the rim boundary, as such bound-  
21 ary is depicted on Map 1 accompanying the Bureau  
22 of Land Management's final Resource Management  
23 Plan Amendment and Environmental Impact State-  
24 ment for the Roan Plateau Planning Area dated Au-  
25 gust, 2006.

1 (b) REPORT ON CLEANUP STATUS.—No later than  
2 30 days after the date of enactment of this Act—

3 (1) the Secretary of the Treasury shall provide  
4 to the appropriate Committees of Congress a report  
5 detailing the total amounts received by the United  
6 States under leases of Federal lands in Colorado for-  
7 merly designated as Naval Oil Shale Reserves 1 and  
8 3 pursuant to section 7439 of title 10, United States  
9 Code, and covered into the Treasury pursuant to  
10 subsection (f) of such section; and

11 (2) the Secretary of the Interior shall provide to  
12 the appropriate committees of Congress a report—

13 (A) detailing the amounts expended by the  
14 United States for environmental restoration,  
15 waste management, and environmental compli-  
16 ance activities with respect to the lands de-  
17 scribed in paragraph (1), to repay the cost to  
18 the United States to originally install wells,  
19 gathering lines, and related equipment on such  
20 lands, and any other cost incurred by the  
21 United States with respect to such lands; and

22 (B) stating what further actions are re-  
23 quired to complete the needed environmental  
24 restoration, waste management, and environ-  
25 mental compliance activities with regard to such

1 lands, the estimated cost of such activities, and  
2 when the Secretary expects such activities will  
3 be completed.

## 4 **TITLE VIII—TRANSPORTATION** 5 **AND INFRASTRUCTURE**

### 6 **SEC. 8001. SHORT TITLE.**

7 This title may be cited as the “Transportation En-  
8 ergy Security and Climate Change Mitigation Act of  
9 2007”.

### 10 **SEC. 8002. FINDINGS AND PURPOSES.**

11 (a) FINDINGS.—Congress makes the following find-  
12 ings:

13 (1) Evidence that atmospheric warming and cli-  
14 mate change are occurring is unequivocal.

15 (2) Observed and anticipated impacts of climate  
16 change can result in economic harm and environ-  
17 mental damage to the United States and the world.

18 (3) The Nation’s water resources, ecosystems,  
19 and infrastructure will be under increasing stress  
20 and pressure in coming decades, particularly due to  
21 climate change.

22 (4) Greenhouse gases, such as carbon dioxide,  
23 methane, and nitrous oxides, can lead to atmos-  
24 pheric warming and climate change.

1           (5) Transportation and buildings are among the  
2           leading sources of greenhouse gas emissions.

3           (6) Increased reliance on energy efficient and  
4           renewable energy transportation and public buildings  
5           can strengthen our Nation's energy security and  
6           mitigate the effects of climate change by cutting  
7           greenhouse gas emissions.

8           (7) The Federal Government can strengthen  
9           our Nation's energy security and mitigate the effects  
10          of climate change by promoting energy efficient  
11          transportation and public buildings, creating incen-  
12          tives for the use of alternative fuel vehicles and re-  
13          newable energy, and ensuring sound water resource  
14          and natural disaster preparedness planning.

15          (b) PURPOSES.—The purposes of this title are to  
16          strengthen our Nation's energy security and mitigate the  
17          effects of climate change by promoting energy efficient  
18          transportation and public buildings, creating incentives for  
19          the use of alternative fuel vehicles and renewable energy,  
20          and ensuring sound water resource and natural disaster  
21          preparedness planning.

1                   **Subtitle A—Department of**  
2                   **Transportation**

3 **SEC. 8101. CENTER FOR CLIMATE CHANGE AND ENVIRON-**  
4                   **MENT.**

5           (a) IN GENERAL.—Section 102 of title 49, United  
6 States Code, is amended—

7               (1) by redesignating subsection (g) as sub-  
8               section (h); and

9               (2) by adding after subsection (f) the following:

10           “(g) CENTER FOR CLIMATE CHANGE AND ENVIRON-  
11 MENT.—

12               “(1) ESTABLISHMENT.—There is established in  
13               the Department a Center for Climate Change and  
14               Environment to plan, coordinate, and implement—

15                   “(A) department-wide research, strategies,  
16                   and actions under the Department’s statutory  
17                   authority to reduce transportation-related en-  
18                   ergy use and mitigate the effects of climate  
19                   change; and

20                   “(B) department-wide research strategies  
21                   and action to address the impacts of climate  
22                   change on transportation systems and infra-  
23                   structure.

24               “(2) CLEARINGHOUSE.—The Center shall es-  
25               tablish a clearinghouse of low-cost solutions, includ-

1 ing projects that are being or could be implemented  
2 under the congestion mitigation and air quality im-  
3 provement program of section 149 of title 23, to re-  
4 duce congestion and transportation-related energy  
5 use and air pollution and mitigate the effects of cli-  
6 mate change.”.

7 (b) COORDINATION.—The Center for Climate Change  
8 and Environment of the Department of Transportation  
9 shall coordinate its activities with the United States Global  
10 Change Research Program.

11 (c) LOW-COST CONGESTION SOLUTIONS.—

12 (1) STUDY.—The Center for Climate Change  
13 and Environment, in coordination with the Environ-  
14 mental Protection Agency, shall conduct a study to  
15 examine fuel efficiency savings and clean air impacts  
16 of major transportation projects, to identify low-cost  
17 solutions to reduce congestion and transportation-re-  
18 lated energy use and mitigate the effects of climate  
19 change, and to alleviate such problems as railroad  
20 pricing that may force freight off the more fuel effi-  
21 cient railroads and onto less fuel efficient trucks.

22 (2) REPORT.—Not later than one year after the  
23 date of enactment of this title, the Secretary of  
24 Transportation, in coordination with the Adminis-  
25 trator of the Environmental Protection Agency, shall

1 transmit to the Committee on Transportation and  
2 Infrastructure and the Committee on Energy and  
3 Commerce of the House of Representatives a report  
4 on low-cost solutions to reducing congestion and  
5 transportation-related energy use and mitigating the  
6 effects of climate change.

7 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
8 are authorized to be appropriated to the Secretary for the  
9 Center to carry out its duties under section 102(g) of title  
10 49, United States Code, such sums as may be necessary  
11 for fiscal years 2008 through 2011.

## 12 **Subtitle B—Highways and Transit**

### 13 **PART 1—PUBLIC TRANSPORTATION**

#### 14 **SEC. 8201. GRANTS TO IMPROVE PUBLIC TRANSPORTATION** 15 **SERVICES.**

16 (a) AUTHORIZATIONS OF APPROPRIATIONS.—

17 (1) URBANIZED AREA FORMULA GRANTS.—In  
18 addition to amounts allocated under section  
19 5338(b)(2)(B) of title 49, United States Code, to  
20 carry out section 5307 of such title, there is author-  
21 ized to be appropriated \$750,000,000 for each of fis-  
22 cal years 2008 and 2009 to carry out such section  
23 5307. Such funds shall be apportioned in accordance  
24 with section 5336 (other than subsections (i)(1) and  
25 (j)) of such title but may not be combined or com-

1 mingled with any other funds apportioned under  
2 such section 5336.

3 (2) FORMULA GRANTS FOR OTHER THAN UR-  
4 BANIZED AREAS.—In addition to amounts allocated  
5 under section 5338(b)(2)(G) of title 49, United  
6 States Code, to carry out section 5311 of such title,  
7 there is authorized to be appropriated \$100,000,000  
8 for each of fiscal years 2008 and 2009 to carry out  
9 such section 5311. Such funds shall be apportioned  
10 in accordance with such section 5311 but may not  
11 be combined or commingled with any other funds  
12 apportioned under such section 5311.

13 (b) USE OF FUNDS.—Notwithstanding sections 5307  
14 and 5311 of title 49, United States Code, the Secretary  
15 of Transportation may make grants under such sections  
16 from amounts appropriated under subsection (a) only for  
17 one or more of the following:

18 (1) If the recipient of the grant is reducing, or  
19 certifies to the Secretary that, during the term of  
20 the grant, the recipient will reduce one or more fares  
21 the recipient charges for public transportation, those  
22 operating costs of equipment and facilities being  
23 used to provide the public transportation that the re-  
24 cipient is no longer able to pay from the revenues

1 derived from such fare or fares as a result of such  
2 reduction.

3 (2) If the recipient of the grant is expanding,  
4 or certifies to the Secretary that, during the term of  
5 the grant, the recipient will expand public transpor-  
6 tation service, those operating and capital costs of  
7 equipment and facilities being used to provide the  
8 public transportation service that the recipient in-  
9 curs as a result of the expansion of such service.

10 (c) FEDERAL SHARE.—Notwithstanding any other  
11 provision of law, the Federal share of the costs for which  
12 a grant is made under this section shall be 100 percent.

13 (d) PERIOD OF AVAILABILITY.—Funds appropriated  
14 under this section shall remain available for a period of  
15 2 fiscal years.

16 **SEC. 8202. INCREASED FEDERAL SHARE FOR CLEAN AIR**  
17 **ACT COMPLIANCE.**

18 Notwithstanding section 5323(i)(1) of title 49,  
19 United States Code, a grant for a project to be assisted  
20 under chapter 53 of such title during fiscal years 2008  
21 and 2009 that involves acquiring clean fuel or alternative  
22 fuel vehicle-related equipment or facilities for the purposes  
23 of complying with or maintaining compliance with the  
24 Clean Air Act (42 U.S.C. 7401 et seq.) shall be for 100

1 percent of the net project cost of the equipment or facility  
 2 attributable to compliance with that Act.

3 **SEC. 8203. COMMUTER RAIL TRANSIT ENHANCEMENT.**

4 (a) AMENDMENT.—Part E of subtitle V of title 49,  
 5 United States Code, is amended by adding at the end the  
 6 following:

7 **“CHAPTER 285—COMMUTER RAIL**  
 8 **TRANSIT ENHANCEMENT**

“Sec.

“28501. Definitions

“28502. Surface Transportation Board mediation of trackage use requests.

“28503. Surface Transportation Board mediation of rights-of-way use requests.

“28504. Applicability of other laws.

“28505. Rules and regulations.

9 **“§ 28501. Definitions**

10 “In this chapter—

11 “(1) the term ‘Board’ means the Surface  
 12 Transportation Board;

13 “(2) the term ‘capital work’ means mainte-  
 14 nance, restoration, reconstruction, capacity enhance-  
 15 ment, or rehabilitation work on trackage that would  
 16 be treated, in accordance with generally accepted ac-  
 17 counting principles, as a capital item rather than an  
 18 expense;

19 “(3) the term ‘fixed guideway transportation’  
 20 means public transportation (as defined in section  
 21 5302(a)(10)) provided on, by, or using a fixed guide-  
 22 way (as defined in section 5302(a)(4));

1           “(4) the term ‘public transportation authority’  
2 means a local governmental authority (as defined in  
3 section 5302(a)(6)) established to provide, or make  
4 a contract providing for, fixed guideway transpor-  
5 tation;

6           “(5) the term ‘rail carrier’ means a person,  
7 other than a governmental authority, providing com-  
8 mon carrier railroad transportation for compensation  
9 subject to the jurisdiction of the Board under chap-  
10 ter 105;

11           “(6) the term ‘segregated fixed guideway facil-  
12 ity’ means a fixed guideway facility constructed  
13 within the railroad right-of-way of a rail carrier but  
14 physically separate from trackage, including relo-  
15 cated trackage, within the right-of-way used by a  
16 rail carrier for freight transportation purposes; and

17           “(7) the term ‘trackage’ means a railroad line  
18 of a rail carrier, including a spur, industrial, team,  
19 switching, side, yard, or station track, and a facility  
20 of a rail carrier.

21 **“§ 28502. Surface Transportation Board mediation of**  
22 **trackage use requests**

23           “If, after a reasonable period of negotiation, a public  
24 transportation authority cannot reach agreement with a  
25 rail carrier to use trackage of, and have related services

1 provided by, the rail carrier for purposes of fixed guideway  
2 transportation, the public transportation authority or the  
3 rail carrier may apply to the Board for nonbinding medi-  
4 ation. The Board shall conduct the nonbinding mediation  
5 in accordance with the mediation process of section 1109.4  
6 of title 49, Code of Federal Regulations, as in effect on  
7 the date of enactment of this section.

8 **“§ 28503. Surface Transportation Board mediation of**  
9 **rights-of-way use requests**

10 “If, after a reasonable period of negotiation, a public  
11 transportation authority cannot reach agreement with a  
12 rail carrier to acquire an interest in a railroad right-of-  
13 way for the construction and operation of a segregated  
14 fixed guideway facility, the public transportation authority  
15 or the rail carrier may apply to the Board for nonbinding  
16 mediation. The Board shall conduct the nonbinding medi-  
17 ation in accordance with the mediation process of section  
18 1109.4 of title 49, Code of Federal Regulations, as in ef-  
19 fect on the date of enactment of this section.

20 **“§ 28504. Applicability of other laws**

21 “Nothing in this chapter shall be construed to limit  
22 a rail transportation provider’s right under section  
23 28103(b) to enter into contracts that allocate financial re-  
24 sponsibility for claims.

1 **“§ 28505. Rules and regulations**

2 “Not later than 180 days after the date of enactment  
3 of this section, the Board shall issue such rules and regu-  
4 lations as may be necessary to carry out this chapter.”.

5 (b) CLERICAL AMENDMENT.—The table of chapters  
6 of such subtitle is amended by adding after the item relat-  
7 ing to chapter 283 the following:

“285. COMMUTER RAIL TRANSIT ENHANCEMENT ..... 28501”.

8 **PART 2—FEDERAL-AID HIGHWAYS**

9 **SEC. 8251. INCREASED FEDERAL SHARE FOR CMAQ**  
10 **PROJECTS.**

11 Section 120(c) of title 23, United States Code, is  
12 amended—

13 (1) in the subsection heading by striking “FOR  
14 CERTAIN SAFETY PROJECTS”;

15 (2) by striking “The Federal share” and insert-  
16 ing the following:

17 “(1) CERTAIN SAFETY PROJECTS.—The Fed-  
18 eral share”; and

19 (3) by adding at the end the following:

20 “(2) CMAQ PROJECTS.—The Federal share  
21 payable on account of a project or program carried  
22 out under section 149 with funds obligated in fiscal  
23 year 2008 or 2009, or both, shall be 100 percent of  
24 the cost thereof.”.

1 **SEC. 8252. DISTRIBUTION OF RESCISSIONS.**

2 (a) IN GENERAL.—Any unobligated balances of  
3 amounts that are appropriated from the Highway Trust  
4 Fund for a fiscal year, and apportioned under chapter 1  
5 of title 23, United States Code, before, on, or after the  
6 date of enactment of this Act and that are rescinded after  
7 such date of enactment shall be distributed within each  
8 State (as defined in section 101 of such title) among all  
9 programs for which funds are apportioned under such  
10 chapter for such fiscal year, to the extent sufficient funds  
11 remain available for obligation, in the ratio that the  
12 amount of funds apportioned for each program under such  
13 chapter for such fiscal year, bears to the amount of funds  
14 apportioned for all such programs under such chapter for  
15 such fiscal year.

16 (b) TREATMENT OF TRANSPORTATION ENHANCE-  
17 MENT SET-ASIDE AND FUNDS SUBALLOCATED TO SUB-  
18 STATE AREAS.—Funds set aside under sections 133(d)(2)  
19 and 133(d)(3) of title 23, United States Code, shall be  
20 treated as being apportioned under chapter 1 of such title  
21 for purposes of subsection (a).

22 **SEC. 8253. SENSE OF CONGRESS REGARDING USE OF COM-**  
23 **plete Streets Design Techniques.**

24 It is the sense of Congress that in constructing new  
25 roadways or rehabilitating existing facilities, State and  
26 local governments should employ policies designed to ac-

1 commodate all users, including motorists, pedestrians, cy-  
2 clists, transit riders, and people of all ages and abilities,  
3 in order to—

4           (1) serve all surface transportation users by  
5           creating a more interconnected and intermodal sys-  
6           tem;

7           (2) create more viable transportation options;  
8           and

9           (3) facilitate the use of environmentally friendly  
10          options, such as public transportation, walking, and  
11          bicycling.

## 12   **Subtitle C—Railroad and Pipeline** 13                   **Transportation**

### 14                   **PART 1—RAILROADS**

#### 15   **SEC. 8301. ADVANCED TECHNOLOGY LOCOMOTIVE GRANT** 16                   **PILOT PROGRAM.**

17          (a) IN GENERAL.—The Secretary of Transportation,  
18 in coordination with the Administrator of the Environ-  
19 mental Protection Agency, shall establish and carry out  
20 a pilot program for making grants to railroad carriers (as  
21 defined in section 20102 of title 49, United States Code)  
22 and State and local governments—

23           (1) for assistance in purchasing hybrid loco-  
24          motives, including hybrid switch locomotives; and

1           (2) to demonstrate the extent to which such lo-  
2           comotives increase fuel economy, reduce emissions,  
3           and lower costs of operation.

4           (b) LIMITATION.—Notwithstanding subsection (a),  
5           no grant under this section may be used to fund the costs  
6           of emissions reductions that are mandated under Federal,  
7           State, or local law.

8           (c) GRANT CRITERIA.—In selecting applicants for  
9           grants under this section, the Secretary shall consider—

10           (1) the level of energy efficiency that would be  
11           achieved by the proposed project;

12           (2) the extent to which the proposed project  
13           would assist in commercial deployment of hybrid lo-  
14           comotive technologies;

15           (3) the extent to which the proposed project  
16           complements other private or governmental partner-  
17           ship efforts to improve air quality or fuel efficiency  
18           in a particular area; and

19           (4) the extent to which the applicant dem-  
20           onstrates innovative strategies and a financial com-  
21           mitment to increasing energy efficiency and reducing  
22           greenhouse gas emissions of its railroad operations.

23           (d) COMPETITIVE GRANT SELECTION PROCESS.—

24           (1) APPLICATIONS.—A railroad carrier or State  
25           or local government seeking a grant under this sec-

1       tion shall submit for approval by the Secretary an  
2       application for the grant under this section con-  
3       taining such information as the Secretary may re-  
4       quire to receive a grant under this section.

5           (2) COMPETITIVE SELECTION.—The Secretary  
6       shall conduct a national solicitation for applications  
7       for grants under this section and shall select grant-  
8       ees on a competitive basis.

9           (e) FEDERAL SHARE.—The Federal share of the cost  
10      of a project under this section shall not exceed 90 percent  
11      of the project cost.

12          (f) REPORT.—Not later than 3 years after the date  
13      of enactment of this Act, the Secretary shall submit to  
14      Congress a report on the results of the pilot program car-  
15      ried out under this section.

16          (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
17      authorized to be appropriated to the Secretary  
18      \$10,000,000 for each of the fiscal years 2008 through  
19      2011 to carry out this section. Such funds shall remain  
20      available until expended.

21      **SEC. 8302. CAPITAL GRANTS FOR RAILROAD TRACK.**

22          (a) AMENDMENT.—Chapter 223 of title 49, United  
23      States Code, is amended to read as follows:

1       **“CHAPTER 223—CAPITAL GRANTS FOR**  
2                                   **RAILROAD TRACK**

“Sec.

“22301. Capital grants for railroad track.

3       **“§ 22301. Capital grants for railroad track**

4           “(a) ESTABLISHMENT OF PROGRAM.—

5                   “(1) ESTABLISHMENT.—The Secretary of  
6           Transportation shall establish a program of capital  
7           grants for the rehabilitation, preservation, or im-  
8           provement of railroad track (including roadbed,  
9           bridges, and related track structures) of class II and  
10          class III railroads. Such grants shall be for rehabili-  
11          tating, preserving, or improving track used primarily  
12          for freight transportation to a standard ensuring  
13          that the track can be operated safely and efficiently,  
14          including grants for rehabilitating, preserving, or im-  
15          proving track to handle 286,000 pound railcars.  
16          Grants may be provided under this chapter—

17                   “(A) directly to the class II or class III  
18                  railroad; or

19                   “(B) with the concurrence of the class II  
20                  or class III railroad, to a State or local govern-  
21                  ment.

22                   “(2) STATE COOPERATION.—Class II and class  
23                  III railroad applicants for a grant under this chap-  
24                  ter are encouraged to utilize the expertise and assist-

1       ance of State transportation agencies in applying for  
2       and administering such grants. State transportation  
3       agencies are encouraged to provide such expertise  
4       and assistance to such railroads.

5           “(3) INTERIM REGULATIONS.—Not later than  
6       December 31, 2007, the Secretary shall issue tem-  
7       porary regulations to implement the program under  
8       this section. Subchapter II of chapter 5 of title 5  
9       does not apply to a temporary regulation issued  
10      under this paragraph or to an amendment to such  
11      a temporary regulation.

12          “(4) FINAL REGULATIONS.—Not later than Oc-  
13      tober 1, 2008, the Secretary shall issue final regula-  
14      tions to implement the program under this section.

15          “(b) MAXIMUM FEDERAL SHARE.—The maximum  
16      Federal share for carrying out a project under this section  
17      shall be 80 percent of the project cost. The non-Federal  
18      share may be provided by any non-Federal source in cash,  
19      equipment, or supplies. Other in-kind contributions may  
20      be approved by the Secretary on a case-by-case basis con-  
21      sistent with this chapter.

22          “(c) PROJECT ELIGIBILITY.—For a project to be eli-  
23      gible for assistance under this section the track must have  
24      been operated or owned by a class II or class III railroad  
25      as of the date of the enactment of this chapter.

1       “(d) USE OF FUNDS.—Grants provided under this  
2 section shall be used to implement track capital projects  
3 as soon as possible. In no event shall grant funds be con-  
4 tractually obligated for a project later than the end of the  
5 third Federal fiscal year following the year in which the  
6 grant was awarded. Any funds not so obligated by the end  
7 of such fiscal year shall be returned to the Secretary for  
8 reallocation.

9       “(e) EMPLOYEE PROTECTION.—The Secretary shall  
10 require as a condition of any grant made under this sec-  
11 tion that the recipient railroad provide a fair arrangement  
12 at least as protective of the interests of employees who  
13 are affected by the project to be funded with the grant  
14 as the terms imposed under section 11326(a), as in effect  
15 on the date of the enactment of this chapter.

16       “(f) LABOR STANDARDS.—

17               “(1) PREVAILING WAGES.—The Secretary shall  
18 ensure that laborers and mechanics employed by  
19 contractors and subcontractors in construction work  
20 financed by a grant made under this section will be  
21 paid wages not less than those prevailing on similar  
22 construction in the locality, as determined by the  
23 Secretary of Labor under subchapter IV of chapter  
24 31 of title 40 (commonly known as the ‘Davis-Bacon  
25 Act’). The Secretary shall make a grant under this

1 section only after being assured that required labor  
2 standards will be maintained on the construction  
3 work.

4 “(2) WAGE RATES.—Wage rates in a collective  
5 bargaining agreement negotiated under the Railway  
6 Labor Act (45 U.S.C. 151 et seq.) are deemed for  
7 purposes of this subsection to comply with the sub-  
8 chapter IV of chapter 31 of title 40.

9 “(g) STUDY.—The Secretary shall conduct a study  
10 of the projects carried out with grant assistance under this  
11 section to determine the public interest benefits associated  
12 with the light density railroad networks in the States and  
13 their contribution to a multimodal transportation system.  
14 Not later than March 31, 2009, the Secretary shall report  
15 to Congress any recommendations the Secretary considers  
16 appropriate regarding the eligibility of light density rail  
17 networks for Federal infrastructure financing.

18 “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
19 is authorized to be appropriated to the Secretary of Trans-  
20 portation \$250,000,000 for each of fiscal years 2008  
21 through 2011 for carrying out this section.”.

22 (b) CLERICAL AMENDMENT.—The item relating to  
23 chapter 223 in the table of chapters of subtitle V of title  
24 49, United States Code, is amended to read as follows:

“223. CAPITAL GRANTS FOR RAILROAD TRACK ..... 22301”.

**PART 2—PIPELINES****2 SEC. 8311. FEASIBILITY STUDIES.**

3 (a) IN GENERAL.—The Secretary of Energy, in co-  
4 ordination with the Secretary of Transportation, shall con-  
5 duct feasibility studies for the construction of pipeline  
6 dedicated to the transportation of ethanol.

7 (b) REPORT.—Not later than 1 year after the date  
8 of enactment of this Act, the Secretary of Energy shall  
9 submit to the Committee on Transportation and Infra-  
10 structure of the House of Representatives and the Com-  
11 mittee on Commerce, Science, and Transportation of the  
12 Senate a report on such feasibility studies.

13 (c) STUDY FACTORS.—Feasibility studies funded  
14 under this part shall include consideration of—

15 (1) existing or potential barriers to the con-  
16 struction of pipelines dedicated to the transportation  
17 of ethanol, including technical, siting, financing, and  
18 regulatory barriers;

19 (2) market risk, including throughput risk;

20 (3) regulatory, financing, and siting options  
21 that would mitigate such risk and help ensure the  
22 construction of pipelines dedicated to the transpor-  
23 tation of ethanol;

24 (4) ensuring the safe transportation of ethanol  
25 and preventive measures to ensure pipeline integrity;  
26 and



1       “(b) PROGRAM ELEMENTS.—The program shall en-  
2 courage the use of short sea transportation through the  
3 development and expansion of—

4               “(1) documented vessels;

5               “(2) shipper utilization;

6               “(3) port and landside infrastructure; and

7               “(4) marine transportation strategies by State  
8 and local governments.

9       “(c) SHORT SEA TRANSPORTATION ROUTES.—The  
10 Secretary shall designate short sea transportation routes  
11 as extensions of the surface transportation system to focus  
12 public and private efforts to use the waterways to relieve  
13 landside congestion along coastal corridors. The Secretary  
14 may collect and disseminate data for the designation and  
15 delineation of short sea transportation routes.

16       “(d) PROJECT DESIGNATION.—The Secretary may  
17 designate a project to be a short sea transportation project  
18 if the Secretary determines that the project may—

19               “(1) offer a waterborne alternative to available  
20 landside transportation services using documented  
21 vessels; and

22               “(2) provide transportation services for pas-  
23 sengers or freight (or both) that may reduce conges-  
24 tion on landside infrastructure using documented  
25 vessels.

1       “(e) ELEMENTS OF PROGRAM.—For a short sea  
2 transportation project designated under this section, the  
3 Secretary of Transportation may—

4           “(1) promote the development of short sea  
5 transportation services;

6           “(2) coordinate, with ports, State departments  
7 of transportation, localities, other public agencies,  
8 and the private sector and on the development of  
9 landside facilities and infrastructure to support  
10 short sea transportation services; and

11          “(3) develop performance measures for the  
12 short sea transportation program.

13       “(f) MULTISTATE, STATE AND REGIONAL TRANS-  
14 PORTATION PLANNING.—The Secretary, in consultation  
15 with Federal entities and State and local governments,  
16 shall develop strategies to encourage the use of short sea  
17 transportation for transportation of passengers and cargo.  
18 The Secretary shall—

19           “(1) assess the extent to which States and local  
20 governments include short sea transportation and  
21 other marine transportation solutions in their trans-  
22 portation planning;

23           “(2) encourage State departments of transpor-  
24 tation to develop strategies, where appropriate, to  
25 incorporate short sea transportation, ferries, and

1 other marine transportation solutions for regional  
2 and interstate transport of freight and passengers in  
3 their transportation planning; and

4 “(3) encourage groups of States and multi-  
5 State transportation entities to determine how short  
6 sea transportation can address congestion, bottle-  
7 necks, and other interstate transportation chal-  
8 lenges.

9 **“§ 55602. Cargo and shippers**

10 “(a) MEMORANDUMS OF AGREEMENT.—The Sec-  
11 retary of Transportation shall enter into memorandums  
12 of understanding with the heads of other Federal entities  
13 to transport federally owned or generated cargo using a  
14 short sea transportation project designated under section  
15 55601 when practical or available.

16 “(b) SHORT-TERM INCENTIVES.—The Secretary  
17 shall consult shippers and other participants in transpor-  
18 tation logistics and develop proposals for short-term incen-  
19 tives to encourage the use of short sea transportation.

20 **“§ 55603. Financing of short sea transportation**  
21 **projects**

22 “(a) AUTHORITY TO MAKE LOAN GUARANTEE.—The  
23 Secretary of Transportation, subject to the availability of  
24 appropriations, may make a loan guarantee for the financ-  
25 ing of the construction, reconstruction, or reconditioning

1 of a vessel that will be used for a short sea transportation  
2 project designated under section 55601.

3 “(b) TERMS AND CONDITIONS.—In making a loan  
4 guarantee under this section, the Secretary shall use the  
5 authority, terms, and conditions that apply to a loan guar-  
6 antee made under chapter 537.

7 “(c) GENERAL LIMITATIONS.—The total unpaid  
8 principal amount of obligations guaranteed under this  
9 chapter and outstanding at one time may not exceed  
10 \$2,000,000,000.

11 “(d) FULL FAITH AND CREDIT.—The full faith and  
12 credit of the United States Government is pledged to the  
13 payment of a guarantee made under this chapter, for both  
14 principal and interest, including interest (as may be pro-  
15 vided for in the guarantee) accruing between the date of  
16 default under a guaranteed obligation and the date of pay-  
17 ment in full of the guarantee.

18 “(e) AUTHORIZATION OF APPROPRIATIONS.—There  
19 is authorized to be appropriated \$25,000,000 to carry out  
20 this section for each of fiscal years 2008 through 2011.

21 **“§ 55604. Interagency coordination**

22 “The Secretary of Transportation shall establish a  
23 board to identify and seek solutions to impediments hin-  
24 dering effective use of short sea transportation. The board  
25 shall include representatives of the Environmental Protec-

1 tion Agency and other Federal, State, and local govern-  
2 mental entities and private sector entities.

3 **“§ 55605. Research on short sea transportation**

4 “The Secretary of Transportation, in consultation  
5 with the Administrator of the Environmental Protection  
6 Agency, may conduct research on short sea transportation,  
7 regarding—

8 “(1) the environmental and transportation ben-  
9 efits to be derived from short sea transportation al-  
10 ternatives for other forms of transportation;

11 “(2) technology, vessel design, and other im-  
12 provements that would reduce emissions, increase  
13 fuel economy, and lower costs of short sea transpor-  
14 tation and increase the efficiency of intermodal  
15 transfers; and

16 “(3) identify and seek solutions to impediments  
17 to short sea transportation projects designated  
18 under section 55601.

19 **“§ 55606. Short sea transportation defined**

20 “In this chapter, the term ‘short sea transportation’  
21 means the carriage by vessel of cargo—

22 “(1) that is—

23 “(A) contained in intermodal cargo con-  
24 tainers and loaded by crane on the vessel; or

1           “(B) loaded on the vessel by means of  
2           wheeled technology; and

3           “(2) that is—

4           “(A) loaded at a port in the United States  
5           and unloaded at another port in the United  
6           States or a port in Canada located in the Great  
7           Lakes Saint Lawrence Seaway System; or

8           “(B) loaded at a port in Canada located in  
9           the Great Lakes Saint Lawrence Seaway Sys-  
10          tem and unloaded at a port in the United  
11          States.”.

12          (b) CLERICAL AMENDMENT.—The table of chapters  
13 at the beginning of subtitle V of such title is amended  
14 by inserting after the item relating to chapter 555 the fol-  
15 lowing:

**“556. Short Sea Transportation .....55601”.**

16          (c) REGULATIONS.—

17           (1) INTERIM REGULATIONS.—Not later than  
18           December 31, 2007, the Secretary of Transportation  
19           shall issue temporary regulations to implement the  
20           program under this section. Subchapter II of chap-  
21           ter 5 of title 5, United States Code, does not apply  
22           to a temporary regulation issued under this para-  
23           graph or to an amendment to such a temporary reg-  
24           ulation.

1           (2) FINAL REGULATIONS.—Not later than Oc-  
2           tober 1, 2008, the Secretary shall issue final regula-  
3           tions to implement the program under this section.

4 **SEC. 8402. SHORT SEA SHIPPING ELIGIBILITY FOR CAPITAL**  
5 **CONSTRUCTION FUND.**

6           (a) DEFINITION OF QUALIFIED VESSEL.—Section  
7 53501 of title 46, United States Code, is amended—

8           (1) in paragraph (5)(A)(iii) by striking “or non-  
9           contiguous domestic” and inserting “noncontiguous  
10          domestic, or short sea transportation trade”; and

11          (2) by inserting after paragraph (6) the fol-  
12          lowing:

13               “(7) SHORT SEA TRANSPORTATION TRADE.—  
14          The term ‘short sea transportation trade’ means the  
15          carriage by vessel of cargo—

16               “(A) that is—

17                       “(i) contained in intermodal cargo  
18                       containers and loaded by crane on the ves-  
19                       sel; or

20                       “(ii) loaded on the vessel by means of  
21                       wheeled technology; and

22               “(B) that is—

23                       “(i) loaded at a port in the United  
24                       States and unloaded at another port in the  
25                       United States or a port in Canada located

1 in the Great Lakes Saint Lawrence Sea-  
2 way System; or

3 “(ii) loaded at a port in Canada lo-  
4 cated in the Great Lakes Saint Lawrence  
5 Seaway System and unloaded at a port in  
6 the United States.”.

7 (b) ALLOWABLE PURPOSE.—Section 53503(b) of  
8 such title is amended by striking “or noncontiguous do-  
9 mestic trade” and inserting “noncontiguous domestic, or  
10 short sea transportation trade”.

11 **SEC. 8403. REPORT.**

12 Not later than one year after the date of enactment  
13 of this Act, the Secretary of Transportation, in consulta-  
14 tion with the Administrator of the Environmental Protec-  
15 tion Agency, shall submit to the Committee on Transpor-  
16 tation and Infrastructure of the House of Representatives  
17 and the Committee on Commerce, Science, and Transpor-  
18 tation of the Senate a report on the short sea transpor-  
19 tation program established under the amendments made  
20 by section 8401. The report shall include a description of  
21 the activities conducted under the program, and any rec-  
22 ommendations for further legislative or administrative ac-  
23 tion that the Secretary considers appropriate.

1                   **PART 2—MARITIME POLLUTION**

2   **SEC. 8451. REFERENCES.**

3           Wherever in this part an amendment or repeal is ex-  
4 pressed in terms of an amendment to or a repeal of a sec-  
5 tion or other provision, the reference shall be considered  
6 to be made to a section or other provision of the Act to  
7 Prevent Pollution from Ships (33 U.S.C. 1901 et seq.).

8   **SEC. 8452. DEFINITIONS.**

9           Section 2(a) (33 U.S.C. 1901(a)) is amended—

10           (1) by redesignating paragraphs (1) through  
11           (12) as paragraphs (2) through (13), respectively;

12           (2) by inserting before paragraph (2) (as so re-  
13           designated) the following:

14           “(1) ‘Administrator’ means the Administrator  
15           of the Environmental Protection Agency.”;

16           (3) in paragraph (5) (as so redesignated) by  
17           striking “and V” and inserting “V, and VI”;

18           (4) in paragraph (6) (as so redesignated) by  
19           striking “‘discharge’ and ‘garbage’ and ‘harmful  
20           substance’ and ‘incident’” and inserting “‘dis-  
21           charge’, ‘emission’, ‘garbage’, ‘harmful substance’,  
22           and ‘incident’”; and

23           (5) by redesignating paragraphs (7) through  
24           (13) (as redesignated) as paragraphs (8) through  
25           (14), respectively, and inserting after paragraph (6)  
26           (as redesignated) the following:

1           “(7) ‘navigable waters’ includes the territorial  
2           sea of the United States (as defined in Presidential  
3           Proclamation 5928 of December 27, 1988) and the  
4           internal waters of the United States;”.

5 **SEC. 8453. APPLICABILITY.**

6           Section 3 (33 U.S.C. 1902) is amended—

7           (1) in subsection (a)—

8                 (A) by striking “and” at the end of para-  
9                 graph (3);

10                (B) by striking the period at the end of  
11                paragraph (4) and inserting “; and”; and

12                (C) by adding at the end the following:

13                “(5) with respect to Annex VI to the Conven-  
14                tion, and other than with respect to a ship referred  
15                to in paragraph (1)—

16                   “(A) to a ship that is in a port, shipyard,  
17                   offshore terminal, or the internal waters of the  
18                   United States;

19                   “(B) to a ship that is bound for, or depart-  
20                   ing from, a port, shipyard, offshore terminal, or  
21                   the internal waters of the United States, and is  
22                   in—

23                         “(i) the navigable waters of the  
24                         United States;

1           “(ii) an emission control area des-  
2           ignated pursuant to section 4; or

3           “(iii) any other area that the Admin-  
4           istrator, in consultation with the Secretary  
5           and each State that is adjacent to any part  
6           of the proposed area, has designated by  
7           order as being an area from which emis-  
8           sions from ships are of concern with re-  
9           spect to protection of public health, wel-  
10          fare, or the environment;

11          “(C) to a ship that is entitled to fly the  
12          flag of, or operating under the authority of, a  
13          party to Annex VI, and is in—

14               “(i) the navigable waters of the  
15               United States;

16               “(ii) an emission control area des-  
17               ignated under section 4; or

18               “(iii) any other area that the Admin-  
19               istrator, in consultation with the Secretary  
20               and each State that is adjacent to any part  
21               of the proposed area, has designated by  
22               order as being an area from which emis-  
23               sions from ships are of concern with re-  
24               spect to protection of public health, wel-  
25               fare, or the environment; and

1           “(D) to the extent consistent with inter-  
2           national law, to any other ship that is in—

3                   “(i) the exclusive economic zone of the  
4           United States;

5                   “(ii) the navigable waters of the  
6           United States;

7                   “(iii) an emission control area des-  
8           ignated under section 4; or

9                   “(iv) any other area that the Adminis-  
10          trator, in consultation with the Secretary  
11          and each State in which any part of the  
12          area is located, has designated by order as  
13          being an area from which emissions from  
14          ships are of concern with respect to protec-  
15          tion of public health, welfare, or the envi-  
16          ronment.”;

17          (2) in subsection (b)—

18                   (A) in paragraph (1) by striking “para-  
19          graph (2)” and inserting “paragraphs (2) and  
20          (3)”; and

21                   (B) by adding at the end the following:

22           “(3) With respect to Annex VI the Administrator, or  
23          the Secretary, as relevant to their authorities pursuant to  
24          this Act, may determine that some or all of the require-  
25          ments under this Act shall apply to one or more classes

1 of public vessels, except that such a determination by the  
2 Administrator shall have no effect unless the head of the  
3 Department or agency under which the vessels operate  
4 concurs in the determination. This paragraph does not  
5 apply during time of war or during a declared national  
6 emergency.”;

7 (3) by redesignating subsections (c) through (g)  
8 as subsections (d) through (h), respectively;

9 (4) by inserting after subsection (b) the fol-  
10 lowing:

11 “(c) APPLICATION TO OTHER PERSONS.—This Act  
12 shall apply to all persons to the extent necessary to ensure  
13 compliance with Annex VI to the Convention.”; and

14 (5) in subsection (e), as redesignated—

15 (A) by inserting “or the Administrator,  
16 consistent with section 4 of this Act,” after  
17 “Secretary”;

18 (B) by striking “of section (3)” and insert-  
19 ing “of this section”; and

20 (C) by striking “Protocol, including regula-  
21 tions conforming to and giving effect to the re-  
22 quirements of Annex V” and inserting “Pro-  
23 tocol (or the applicable Annex), including regu-  
24 lations conforming to and giving effect to the  
25 requirements of Annex V and Annex VI”.

1 **SEC. 8454. ADMINISTRATION AND ENFORCEMENT.**

2 Section 4 (33 U.S.C. 1903) is amended—

3 (1) by redesignating subsections (b) and (c) as  
4 subsections (c) and (d), respectively;

5 (2) by inserting after subsection (a) the fol-  
6 lowing:

7 “(b) DUTY OF THE ADMINISTRATOR.—In addition to  
8 other duties specified in this Act, the Administrator and  
9 the Secretary, respectively, shall have the following duties  
10 and authorities:

11 “(1) The Administrator shall, and no other per-  
12 son may, issue Engine International Air Pollution  
13 Prevention certificates in accordance with Annex VI  
14 and the International Maritime Organization’s Tech-  
15 nical Code on Control of Emissions of Nitrogen Ox-  
16 ides from Marine Diesel Engines, on behalf of the  
17 United States for a vessel of the United States as  
18 that term is defined in section 116 of title 46,  
19 United States Code. The issuance of Engine Inter-  
20 national Air Pollution Prevention certificates shall  
21 be consistent with any applicable requirements of  
22 the Clean Air Act (42 U.S.C. 7401 et seq.) or regu-  
23 lations prescribed under that Act.

24 “(2) The Administrator shall have authority to  
25 administer regulations 12, 13, 14, 15, 16, 17, 18,  
26 and 19 of Annex VI to the Convention.

1           “(3) The Administrator shall, only as specified  
2           in section 8(f), have authority to enforce Annex VI  
3           of the Convention.”; and

4           (3) in subsection (c), as redesignated—

5                   (A) by redesignating paragraph (2) as  
6           paragraph (4);

7                   (B) by inserting after paragraph (1) the  
8           following:

9           “(2) In addition to the authority the Secretary has  
10          to prescribe regulations under this Act, the Administrator  
11          shall also prescribe any necessary or desired regulations  
12          to carry out the provisions of regulations 12, 13, 14, 15,  
13          16, 17, 18, and 19 of Annex VI to the Convention.

14          “(3) In prescribing any regulations under this sec-  
15          tion, the Secretary and the Administrator shall consult  
16          with each other, and with respect to regulation 19, with  
17          the Secretary of the Interior.”; and

18                   (C) by adding at the end the following:

19          “(5) No standard issued by any person or Federal  
20          authority, with respect to emissions from tank vessels sub-  
21          ject to regulation 15 of Annex VI to the Convention, shall  
22          be effective until 6 months after the required notification  
23          to the International Maritime Organization by the Sec-  
24          retary.”.

1 **SEC. 8455. CERTIFICATES.**

2 Section 5 (33 U.S.C. 1904) is amended—

3 (1) in subsection (a) by striking “The Sec-  
4 retary” and inserting “Except as provided in section  
5 4(b)(1), the Secretary”;

6 (2) in subsection (b) by striking “Secretary  
7 under the authority of the MARPOL protocol.” and  
8 inserting “Secretary or the Administrator under the  
9 authority of this Act.”; and

10 (3) in subsection (e) by striking “environment.”  
11 and inserting “environment or the public health and  
12 welfare.”.

13 **SEC. 8456. RECEPTION FACILITIES.**

14 Section 6 (33 U.S.C. 1905) is amended—

15 (1) in subsection (a) by adding at the end the  
16 following:

17 “(3) The Secretary and the Administrator, after con-  
18 sulting with appropriate Federal agencies, shall jointly  
19 prescribe regulations setting criteria for determining the  
20 adequacy of reception facilities for receiving ozone deplet-  
21 ing substances, equipment containing such substances,  
22 and exhaust gas cleaning residues at a port or terminal,  
23 and stating any additional measures and requirements as  
24 are appropriate to ensure such adequacy. Persons in  
25 charge of ports and terminals shall provide reception fa-  
26 cilities, or ensure that reception facilities are available, in

1 accordance with those regulations. The Secretary and the  
2 Administrator may jointly prescribe regulations to certify,  
3 and may issue certificates to the effect, that a port's or  
4 terminal's facilities for receiving ozone depleting sub-  
5 stances, equipment containing such substances, and ex-  
6 haust gas cleaning residues from ships are adequate.”;

7 (2) in subsection (b) by inserting “or the Ad-  
8 ministrator” after “Secretary”;

9 (3) in subsection (e) by striking paragraph (2)  
10 and inserting the following:

11 “(2) The Secretary may deny the entry of a ship to  
12 a port or terminal required by the MARPOL Protocol, this  
13 Act, or regulations prescribed under this section relating  
14 to the provision of adequate reception facilities for gar-  
15 bage, ozone depleting substances, equipment containing  
16 those substances, or exhaust gas cleaning residues, if the  
17 port or terminal is not in compliance with the MARPOL  
18 Protocol, this Act, or those regulations.”;

19 (4) in subsection (f)(1) by striking “Secretary  
20 is” and inserting “Secretary and the Administrator  
21 are”; and

22 (5) in subsection (f)(2) by striking “(A)”.

23 **SEC. 8457. INSPECTIONS.**

24 Section 8(f) (33 U.S.C. 1907(f)) is amended to read  
25 as follows:

1       “(f)(1) The Secretary may inspect a ship to which  
2 this Act applies as provided under section 3(a)(5), to  
3 verify whether the ship is in compliance with Annex VI  
4 to the Convention and this Act.

5       “(2) If an inspection under this subsection or any  
6 other information indicates that a violation has occurred,  
7 the Secretary, or the Administrator in a matter referred  
8 by the Secretary, may undertake enforcement action under  
9 this section.

10       “(3) Notwithstanding subsection (b) and paragraph  
11 (2) of this subsection, the Administrator shall have all of  
12 the authorities of the Secretary, as specified in subsection  
13 (b) of this section, for the purposes of enforcing regula-  
14 tions 17 and 18 of Annex VI to the Convention to the  
15 extent that shoreside violations are the subject of the ac-  
16 tion and in any other matter referred to the Administrator  
17 by the Secretary.”.

18 **SEC. 8458. AMENDMENTS TO THE PROTOCOL.**

19       Section 10(b) (33 U.S.C. 1909(b)) is amended by in-  
20 serting “or the Administrator as provided for in this Act,”  
21 after “Secretary,”.

22 **SEC. 8459. PENALTIES.**

23       Section 9 (33 U.S.C. 1908) is amended—

24               (1) by striking “Protocol,,” each place it ap-  
25               pears and inserting “Protocol,”;

1           (2) in subsection (b) by inserting “, or the Ad-  
2           ministrator as provided for in this Act” after “Sec-  
3           retary” the first place it appears;

4           (3) in subsection (b)(2), by inserting “, or the  
5           Administrator as provided for in this Act,” after  
6           “Secretary”;

7           (4) in the matter after paragraph (2) of sub-  
8           section (b)—

9                   (A) by inserting “, or the Administrator as  
10                   provided for in this Act” after “Secretary” the  
11                   first place it appears; and

12                   (B) by inserting “, or the Administrator as  
13                   provided for in this Act,” after “Secretary” the  
14                   second and third places it appears;

15           (5) in subsection (c) by inserting “, or the Ad-  
16           ministrator as provided for in this Act,” after “Sec-  
17           retary” each place it appears; and

18           (6) in subsection (f) by inserting “, or the Ad-  
19           ministrator as provided for in this Act” after “Sec-  
20           retary” the first place appears.

21 **SEC. 8460. EFFECT ON OTHER LAWS.**

22           Section 15 (33 U.S.C. 1911) is amended to read as  
23 follows:

1 **“SEC. 15. EFFECT ON OTHER LAWS.**

2 “Authorities, requirements, and remedies of this Act  
3 supplement and neither amend nor repeal any other au-  
4 thorities, requirements, or remedies conferred by any  
5 other provision of law. Nothing in this Act shall limit,  
6 deny, amend, modify, or repeal any other authority, re-  
7 quirement, or remedy available to the United States or  
8 any other person, except as expressly provided in this  
9 Act.”.

10 **Subtitle E—Aviation**

11 **SEC. 8501. ENVIRONMENTAL MITIGATION PILOT PROGRAM.**

12 (a) **ESTABLISHMENT.**—The Secretary of Transpor-  
13 tation, in coordination with the Administrator of the Envi-  
14 ronmental Protection Agency, shall establish a pilot pro-  
15 gram to carry out not more than 6 environmental mitiga-  
16 tion demonstration projects at public-use airports.

17 (b) **GRANTS.**—In implementing the program, the Sec-  
18 retary may make a grant to the sponsor of a public-use  
19 airport from funds apportioned under section  
20 47117(e)(1)(A) of title 49, United States Code, to carry  
21 out an environmental mitigation demonstration project to  
22 measurably reduce or mitigate aviation impacts on noise,  
23 air quality, or water quality in the vicinity of the airport.

24 (c) **ELIGIBILITY FOR PASSENGER FACILITY FEES.**—  
25 An environmental mitigation demonstration project that  
26 receives funds made available under this section may be

1 considered an eligible airport-related project for purposes  
2 of section 40117 of such title.

3 (d) SELECTION CRITERIA.—In selecting among ap-  
4 plicants for participation in the program, the Secretary  
5 shall give priority consideration to applicants proposing to  
6 carry out environmental mitigation demonstration projects  
7 that will—

8 (1) achieve the greatest reductions in aircraft  
9 noise, airport emissions, or airport water quality im-  
10 pacts either on an absolute basis or on a per dollar  
11 of funds expended basis; and

12 (2) be implemented by an eligible consortium.

13 (e) FEDERAL SHARE.—Notwithstanding any provi-  
14 sion of subchapter I of chapter 471 of such title, the  
15 United States Government share of allowable project costs  
16 of an environmental mitigation demonstration project car-  
17 ried out under this section shall be 50 percent.

18 (f) MAXIMUM AMOUNT.—The Secretary may not  
19 make grants for a single environmental mitigation dem-  
20 onstration project under this section in a total amount  
21 that exceeds \$2,500,000.

22 (g) PUBLICATION OF INFORMATION.—The Secretary  
23 may develop and publish information on the results of en-  
24 vironmental mitigation demonstration projects carried out  
25 under this section, including information identifying best

1 practices for reducing or mitigating aviation impacts on  
2 noise, air quality, or water quality in the vicinity of air-  
3 ports.

4 (h) DEFINITIONS.—In this section, the following defi-  
5 nitions apply:

6 (1) ELIGIBLE CONSORTIUM.—The term “eligi-  
7 ble consortium” means a consortium of 2 or more of  
8 the following entities:

9 (A) A business incorporated in the United  
10 States.

11 (B) A public or private educational or re-  
12 search organization located in the United  
13 States.

14 (C) An entity of a State or local govern-  
15 ment.

16 (D) A Federal laboratory.

17 (2) ENVIRONMENTAL MITIGATION DEMONSTRA-  
18 TION PROJECT.—The term “environmental mitiga-  
19 tion demonstration project” means a project that—

20 (A) demonstrates at a public-use airport  
21 environmental mitigation techniques or tech-  
22 nologies with associated benefits, which have al-  
23 ready been proven in laboratory demonstra-  
24 tions;

1 (B) utilizes methods for efficient adapta-  
2 tion or integration of innovative concepts to air-  
3 port operations; and

4 (C) demonstrates whether a technique or  
5 technology for environmental mitigation identi-  
6 fied in research is—

7 (i) practical to implement at or near  
8 multiple public-use airports; and

9 (ii) capable of reducing noise, airport  
10 emissions, greenhouse gas emissions, or  
11 water quality impacts in measurably sig-  
12 nificant amounts.

## 13 **Subtitle F—Public Buildings**

### 14 **PART 1—GENERAL SERVICES ADMINISTRATION**

#### 15 **SEC. 8601. PUBLIC BUILDING ENERGY EFFICIENT AND RE-** 16 **NEWABLE ENERGY SYSTEMS.**

17 (a) ESTIMATE OF ENERGY PERFORMANCE IN PRO-  
18 SPECTUS.—Section 3307(b) of title 40, United States  
19 Code, is amended—

20 (1) by striking “and” at the end of paragraph  
21 (5);

22 (2) by striking the period at the end of para-  
23 graph (6) and inserting “; and”; and

24 (3) by inserting after paragraph (6) the fol-  
25 lowing:

1           “(7) with respect to any prospectus for the con-  
2           struction, alteration, or acquisition of any building  
3           or space to be leased, an estimate of the future en-  
4           ergy performance of the building or space and a spe-  
5           cific description of the use of energy efficient and re-  
6           newable energy systems, including photovoltaic sys-  
7           tems, in carrying out the project.”.

8           (b) MINIMUM PERFORMANCE REQUIREMENTS FOR  
9           LEASED SPACE.—Section 3307 of such of title is amend-  
10          ed—

11           (1) by redesignating subsections (f) and (g) as  
12          subsections (g) and (h), respectively; and

13           (2) by inserting after subsection (e) the fol-  
14          lowing:

15           “(f) MINIMUM PERFORMANCE REQUIREMENTS FOR  
16          LEASED SPACE.—With respect to space to be leased, the  
17          Administrator shall include, to the maximum extent prac-  
18          ticable, minimum performance requirements requiring en-  
19          ergy efficiency and the use of renewable energy.”.

20           (c) USE OF ENERGY EFFICIENT LIGHTING FIX-  
21          TURES AND BULBS.—

22           (1) IN GENERAL.—Chapter 33 of such title is  
23          amended—

1 (A) by redesignating sections 3313, 3314,  
2 and 3315 as sections 3315, 3316, and 3317, re-  
3 spectively; and

4 (B) by inserting after section 3312 the fol-  
5 lowing:

6 **“§ 3313. Use of energy efficient lighting fixtures and**  
7 **bulbs**

8 “(a) CONSTRUCTION, ALTERATION, AND ACQUI-  
9 SITION OF PUBLIC BUILDINGS.—Each public building con-  
10 structed, altered, or acquired by the Administrator of Gen-  
11 eral Services shall be equipped, to the maximum extent  
12 feasible as determined by the Administrator, with lighting  
13 fixtures and bulbs that are energy efficient.

14 “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each  
15 lighting fixture or bulb that is replaced by the Adminis-  
16 trator in the normal course of maintenance of public build-  
17 ings shall be replaced, to the maximum extent feasible,  
18 with a lighting fixture or bulb that is energy efficient.

19 “(c) CONSIDERATIONS.—In making a determination  
20 under this section concerning the feasibility of installing  
21 a lighting fixture or bulb that is energy efficient, the Ad-  
22 ministrator shall consider—

23 “(1) the life-cycle cost effectiveness of the fix-  
24 ture or bulb;

1           “(2) the compatibility of the fixture or bulb  
2 with existing equipment;

3           “(3) whether use of the fixture or bulb could re-  
4 sult in interference with productivity;

5           “(4) the aesthetics relating to use of the fixture  
6 or bulb; and

7           “(5) such other factors as the Administrator  
8 determines appropriate.

9           “(d) ENERGY STAR.—A lighting fixture or bulb shall  
10 be treated as being energy efficient for purposes of this  
11 section if—

12           “(1) the fixture or bulb is certified under the  
13 Energy Star program established by section 324A of  
14 the Energy Policy and Conservation Act (42 U.S.C.  
15 6294a); or

16           “(2) the Administrator has otherwise deter-  
17 mined that the fixture or bulb is energy efficient.

18           “(e) APPLICABILITY OF BUY AMERICAN ACT.—Ac-  
19 quisitions carried out pursuant to this section shall be sub-  
20 ject to the requirements of the Buy American Act (41  
21 U.S.C. 10c et seq.).

22           “(f) EFFECTIVE DATE.—The requirements of sub-  
23 sections (a) and (b) shall take effect one year after the  
24 date of enactment of this subsection.”.

1           (2) CLERICAL AMENDMENT.—The analysis for  
 2           such chapter is amended by striking the items relat-  
 3           ing to sections 3313, 3314, and 3315 and inserting  
 4           the following:

“3313. Use of energy efficient lighting fixtures and bulbs.

“3314. Maximum period for utility services contracts.

“3315. Delegation.

“3316. Report to Congress.

“3317. Certain authority not affected.”.

5           (d) MAXIMUM PERIOD FOR UTILITY SERVICE CON-  
 6           TRACTS.—Such chapter is further amended by inserting  
 7           after section 3313 (as inserted by subsection (c)(1) of this  
 8           section) the following:

9           **“§ 3314. Maximum period for utility service contracts**

10           “Notwithstanding section 501(b)(1)(B), the Adminis-  
 11           trator of General Services may contract for public utility  
 12           services for a period of not more than 30 years if cost  
 13           effective and necessary to promote the use of energy effi-  
 14           cient and renewable energy systems, including photovoltaic  
 15           systems.”.

16           (e) EVALUATION FACTOR.—Section 3310 of such  
 17           title is amended—

18           (1) by redesignating paragraphs (3), (4), and

19           (5) as paragraphs (4), (5), and (6), respectively; and

20           (2) by inserting after paragraph (2) the fol-  
 21           lowing:

22           “(3) shall include in the solicitation for any  
 23           lease requiring a prospectus under section 3307 an

1 evaluation factor considering the extent to which the  
2 offeror will promote energy efficiency and the use of  
3 renewable energy;”.

4 **SEC. 8602. PUBLIC BUILDING LIFE-CYCLE COSTS.**

5 Section 544(a)(1) of the National Energy Conserva-  
6 tion Policy Act (42 U.S.C. 8254(a)(1)) is amended by  
7 striking “25” and inserting “40”.

8 **SEC. 8603. INSTALLATION OF PHOTOVOLTAIC SYSTEM AT**  
9 **DEPARTMENT OF ENERGY HEADQUARTERS**  
10 **BUILDING.**

11 (a) IN GENERAL.—The Administrator of General  
12 Services shall install a photovoltaic system, as set forth  
13 in the Sun Wall Design Project, for the headquarters  
14 building of the Department of Energy located at 1000  
15 Independence Avenue, SW., Washington, DC, commonly  
16 known as the Forrestal Building.

17 (b) FUNDING.—There shall be available from the  
18 Federal Buildings Fund established by section 592 of title  
19 40, United States Code, \$30,000,000 to carry out this sec-  
20 tion. Such sums shall be derived from the unobligated bal-  
21 ance of amounts made available from the Fund for fiscal  
22 year 2007, and prior fiscal years, for repairs and alter-  
23 nations and other activities (excluding amounts made  
24 available for the energy program). Such sums shall remain  
25 available until expended.

1 (c) OBLIGATION OF FUNDS.—None of the funds  
2 made available pursuant to subsection (b) may be obli-  
3 gated prior to September 30, 2007.

4 **PART 2—COAST GUARD**

5 **SEC. 8631. PROHIBITION ON INCANDESCENT LAMPS BY**  
6 **COAST GUARD.**

7 (a) PROHIBITION.—Except as provided by subsection  
8 (b), on and after January 1, 2009, a general service incan-  
9 descent lamp shall not be purchased or installed in a Coast  
10 Guard facility by or on behalf of the Coast Guard.

11 (b) EXCEPTION.—A general service incandescent  
12 lamp may be purchased, installed, and used in a Coast  
13 Guard facility whenever the application of a general serv-  
14 ice incandescent lamp is—

15 (1) necessary due to purpose or design, includ-  
16 ing medical, security, and industrial applications;

17 (2) reasonable due to the architectural or his-  
18 torical value of a light fixture installed before Janu-  
19 ary 1, 2009; or

20 (3) the Commandant of the Coast Guard deter-  
21 mines that operational requirements necessitate the  
22 use of a general service incandescent lamp.

23 (c) LIMITATION.—In this section, the term “facility”  
24 does not include a vessel or aircraft of the Coast Guard.

1           **PART 3—ARCHITECT OF THE CAPITOL**

2   **SEC. 8651. CAPITOL COMPLEX PHOTOVOLTAIC ROOF FEASI-**  
3                   **BILITY STUDY.**

4           (a) **STUDY.**—The Architect of the Capitol may per-  
5 form a feasibility study regarding construction of a photo-  
6 voltaic roof for the Rayburn House Office Building.

7           (b) **REPORT.**—Not later than 6 months after the date  
8 of enactment of this Act, the Architect of the Capitol shall  
9 transmit to the Committee on Transportation and Infra-  
10 structure of the House of Representatives a report on the  
11 results of the feasibility study and recommendations re-  
12 garding construction of a photovoltaic roof for the building  
13 referred to in subsection (a).

14          (c) **AUTHORIZATION OF APPROPRIATIONS.**—There  
15 are authorized to be appropriated to carry out this section  
16 such sums as may be necessary for fiscal year 2008.

17 **SEC. 8652. CAPITOL COMPLEX E-85 REFUELING STATION.**

18          (a) **CONSTRUCTION.**—The Architect of the Capitol  
19 may construct a fuel tank and pumping system for E-  
20 85 fuel at or within close proximity to the Capitol Grounds  
21 Fuel Station.

22          (b) **USE.**—The E-85 fuel tank and pumping system  
23 shall be available for use by all legislative branch vehicles  
24 capable of operating with E-85 fuel, subject to such other  
25 legislative branch agencies reimbursing the Architect of

1 the Capitol for the costs of E-85 fuel used by such other  
2 legislative branch vehicles.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are authorized to be appropriated to carry out this section  
5 such sums as may be necessary for fiscal year 2008.

6 **SEC. 8653. ENERGY AND ENVIRONMENTAL MEASURES IN**  
7 **CAPITOL COMPLEX MASTER PLAN.**

8 (a) IN GENERAL.—To the maximum extent prac-  
9 ticable, the Architect of the Capitol shall include energy  
10 efficiency measures, climate change mitigation measures,  
11 and other appropriate environmental measures in the Cap-  
12 itol Complex Master Plan.

13 (b) REPORT.—Not later than 6 months after the date  
14 of enactment of this Act, the Architect of the Capitol shall  
15 submit to the Committee on Transportation and Infra-  
16 structure of the House of Representatives and the Com-  
17 mittee on Rules of the Senate a report on the energy effi-  
18 ciency measures, climate change mitigation measures, and  
19 other appropriate environmental measures included in the  
20 Capitol Complex Master Plan pursuant to subsection (a).

21 **SEC. 8654. CAPITOL POWER PLANT.**

22 (a) IN GENERAL.—For the purpose of reducing car-  
23 bon dioxide emissions, the Architect of the Capitol shall  
24 install technologies for the capture and storage or use of

1 carbon dioxide emitted from the Capitol Power plant as  
2 a result of burning coal.

3 (b) CAPITOL POWER PLANT DEFINED.—In this sec-  
4 tion, the term “Capitol power plant” means the power  
5 plant constructed in the vicinity of the Capitol Complex  
6 in the District of Columbia pursuant to the Act of April  
7 28, 1904 (33 Stat. 479, chapter 1762), and designated  
8 under the Act of March 4, 1911 (2 U.S.C. 2162).

9 **Subtitle G—Water Resources and**  
10 **Emergency Management Pre-**  
11 **paredness**

12 **PART 1—WATER RESOURCES**

13 **SEC. 8701. POLICY OF THE UNITED STATES.**

14 It is the policy of the United States that all Federal  
15 water resources projects—

16 (1) reflect national priorities for flood damage  
17 reduction, navigation, ecosystem restoration, and  
18 hazard mitigation and consider the future impacts of  
19 increased hurricanes, droughts, and other climate  
20 change-related weather events;

21 (2) avoid the unwise use of floodplains, mini-  
22 mize vulnerabilities in any case in which a floodplain  
23 must be used, protect and restore the extent and  
24 functions of natural systems, and mitigate any un-  
25 avoidable damage to aquatic natural system; and

1           (3) to the maximum extent possible, avoid im-  
2           pacts to wetlands, which create natural buffers, help  
3           filter water, serve as recharge areas for aquifers, re-  
4           duce floods and erosion, and provide valuable plant  
5           and animal habitat.

6 **SEC. 8702. 21ST CENTURY WATER COMMISSION.**

7           (a) **ESTABLISHMENT.**—There is established a com-  
8           mission to be known as the 21st Century Water Commis-  
9           sion (in this section referred to as the “Commission”).

10          (b) **DUTIES.**—The duties of the Commission shall be  
11          to—

12               (1) use existing water assessments and conduct  
13               such additional studies and assessments as may be  
14               necessary to project—

15                       (A) future water supply and demand;

16                       (B) impacts of climate change to our Na-  
17                       tion’s flood risk and water availability; and

18                       (C) associated impacts of climate change  
19                       on water quality;

20               (2)(A) study current water management pro-  
21               grams of Federal, interstate, State, and local agen-  
22               cies and private sector entities directed at increasing  
23               water supplies and improving the availability, reli-  
24               ability, and quality of freshwater resources; and

1           (B) evaluate such programs' hazard mitigation  
2 strategies and contingency planning in light of cli-  
3 mate change impacts, including sea level rise, flood-  
4 ing, and droughts; and

5           (3) consult with representatives of such agen-  
6 cies and entities to develop recommendations, con-  
7 sistent with laws, treaties, decrees, and interstate  
8 compacts, for a comprehensive water strategy to—

9           (A) recognize the primary role of States in  
10 adjudicating, administering, and regulating  
11 water rights and water uses;

12           (B) identify incentives intended to ensure  
13 an adequate and dependable supply of water to  
14 meet the needs of the United States for the  
15 next 50 years, including the future impacts of  
16 climate change on water supply and quality;

17           (C) eliminate duplication and conflict  
18 among Federal governmental programs;

19           (D) consider all available technologies (in-  
20 cluding climate change predictions, advanced  
21 modeling and mapping of wetlands, floodplains,  
22 and other critical areas) and other methods to  
23 optimize water supply reliability, availability,  
24 and quality, while safeguarding and enhancing  
25 the environment and planning for the potential

1 impacts of climate change on water quality,  
2 water supply, flood and storm damage reduc-  
3 tion, and ecosystem health;

4 (E) recommend means of capturing excess  
5 water and flood water for conservation and use  
6 in the event of a drought;

7 (F) identify adaptation techniques, or fur-  
8 ther research needs of adaptation techniques,  
9 for effectively conserving freshwater and coastal  
10 systems as they respond to climate change;

11 (G) suggest financing options, incentives,  
12 and strategies for development of comprehen-  
13 sive water management plans, holistically de-  
14 signed water resources projects, conservation of  
15 existing water resources infrastructure (except  
16 drinking water infrastructure) and to increase  
17 the use of nonstructural elements (including  
18 green infrastructure and low impact develop-  
19 ment techniques);

20 (H) suggest strategies for avoiding in-  
21 creased mandates on State and local govern-  
22 ments;

23 (I) suggest strategies for using best avail-  
24 able climate science in projections of future  
25 flood and drought risk, and for developing haz-

1           ard mitigation strategies to protect water qual-  
2           ity, in extreme weather conditions caused by cli-  
3           mate change;

4           (J) identify policies that encourage low im-  
5           pact development, especially in areas near high  
6           priority aquatic systems;

7           (K) suggest strategies for encouraging the  
8           use of, and reducing biases against, non-  
9           structural elements (including green infrastruc-  
10          ture and low impact development techniques)  
11          when managing stormwater, including features  
12          that—

13               (i) preserve and restore natural proc-  
14               esses, landforms (such as floodplains), nat-  
15               ural vegetated stream side buffers, wet-  
16               lands, or other topographical features that  
17               can slow, filter, and naturally store  
18               stormwater runoff and flood waters for fu-  
19               ture water supply and recharge of natural  
20               aquifers;

21               (ii) utilize natural design techniques  
22               that infiltrate, filter, store, evaporate, and  
23               detain water close to its source; or

1 (iii) minimize the use of impervious  
2 surfaces in order to slow or infiltrate pre-  
3 cipitation;

4 (L) suggest strategies for addressing in-  
5 creased sewage overflow problems due to chang-  
6 ing storm dynamics and the impact of aging  
7 stormwater and wastewater infrastructure, pop-  
8 ulation growth, and urban sprawl;

9 (M) promote environmental restoration  
10 projects that reestablish natural processes; and

11 (N) identify opportunities to promote exist-  
12 ing or create regional planning, including op-  
13 portunities to integrate climate change into  
14 water infrastructure and environmental con-  
15 servation planning.

16 (c) MEMBERSHIP.—

17 (1) NUMBER AND APPOINTMENT.—The Com-  
18 mission shall be composed of 8 members who shall  
19 be appointed, not later than 90 days after the date  
20 of enactment of this Act, as follows:

21 (A) 2 members appointed by the President.

22 (B) 2 members appointed by the Speaker  
23 of the House of Representatives from a list of  
24 4 individuals—

1 (i) 2 nominated for that appointment  
2 by the chairman of the Committee on  
3 Transportation and Infrastructure of the  
4 House of Representatives; and

5 (ii) 2 nominated for that appointment  
6 by the chairman of the Committee Natural  
7 Resources of the House of Representatives.

8 (C) 2 members appointed by the majority  
9 leader of the Senate from a list of 4 individ-  
10 uals—

11 (i) 2 nominated for that appointment  
12 by the chairman of the Committee on En-  
13 vironment and Public Works of the Senate;  
14 and

15 (ii) 2 nominated for that appointment  
16 by the chairman of the Committee on En-  
17 ergy and Natural Resources of the Senate.

18 (D) One member appointed by the minor-  
19 ity leader of the House of Representatives from  
20 a list of 2 individuals—

21 (i) one nominated for that appoint-  
22 ment by the ranking member of the Com-  
23 mittee on Transportation and Infrastruc-  
24 ture of the House of Representatives; and

1           (ii) one nominated for that appoint-  
2           ment by the ranking member of the Com-  
3           mittee on Natural Resources of the Senate.

4           (E) 1 member appointed by the minority  
5           leader of the Senate from a list of 2 individ-  
6           uals—

7           (i) one nominated for that appoint-  
8           ment by the ranking member of the Com-  
9           mittee on Environment and Public Works  
10          of the Senate; and

11          (ii) one nominated for that appoint-  
12          ment by the ranking member of the Com-  
13          mittee on Energy and Natural Resources  
14          of the Senate.

15          (2) QUALIFICATIONS.—

16           (A) RECOGNIZED STANDING AND DISTINC-  
17           TION.—Members shall be appointed to the  
18           Commission from among individuals who are of  
19           recognized standing and distinction in water  
20           policy issues.

21           (B) LIMITATION.—A person while serving  
22           as a member of the Commission may not hold  
23           any other position as an officer or employee of  
24           the United States, except as a retired officer or  
25           retired civilian employee of the United States.

1           (C) OTHER CONSIDERATIONS.—In appoint-  
2           ing members of the Commission, every effort  
3           shall be made to ensure that the members rep-  
4           resent a broad cross section of regional and  
5           geographical perspectives in the United States.

6           (3) CHAIRPERSON.—The Chairperson of the  
7           Commission shall be elected by a majority vote of  
8           the members of the Commission.

9           (4) TERMS.—Members of the Commission shall  
10          serve for the life of the Commission.

11          (5) VACANCIES.—A vacancy on the Commission  
12          shall not affect its operation and shall be filled in  
13          the manner in which the original appointment was  
14          made.

15          (6) COMPENSATION AND TRAVEL EXPENSES.—  
16          Members of the Commission shall serve without  
17          compensation; except that members shall receive  
18          travel expenses, including per diem in lieu of subsist-  
19          ence, in accordance with applicable provisions under  
20          subchapter I of chapter 57, United States Code.

21          (d) MEETINGS AND QUORUM.—

22                (1) MEETINGS.—The Commission shall hold its  
23                first meeting not later than 60 days after the date  
24                on which all original members are appointed under  
25                subsection (c) and shall hold additional meetings at

1 the call of the Chairperson or a majority of its mem-  
2 bers.

3 (2) QUORUM.—A majority of the members of  
4 the Commission shall constitute a quorum for the  
5 transaction of business.

6 (e) DIRECTOR AND STAFF.—

7 (1) DIRECTOR.—The Commission shall have a  
8 Director who shall be appointed by the Speaker of  
9 the House of Representatives and the majority lead-  
10 er of the Senate, in consultation with the minority  
11 leader of the House of Representatives, the chairmen  
12 of the Committees on Resources and Transportation  
13 and Infrastructure of the House of Representatives,  
14 the minority leader of the Senate, and the chairmen  
15 of the Committee on Energy and Natural Resources  
16 and Environment and Public Works of the Senate.

17 (2) APPLICABILITY OF CERTAIN CIVIL SERVICE  
18 LAWS.—The Director and staff of the Commission  
19 may be appointed without regard to the provisions  
20 of title 5, United States Code, governing appoint-  
21 ments in the competitive service, and may be paid  
22 without regard to the provisions of chapter 51 and  
23 subchapter III of chapter 53 of that title relating to  
24 classification and General Schedule pay rates; except  
25 that an individual so appointed may not receive pay

1 in excess of the annual rate of basic pay for GS-15  
2 of the General Schedule.

3 (f) HEARINGS.—

4 (1) MINIMUM NUMBER.—The Commission shall  
5 hold no fewer than 10 hearings during the life of the  
6 Commission.

7 (2) IN CONJUNCTION WITH MEETINGS.—Hear-  
8 ings may be held in conjunction with meetings of the  
9 Commission.

10 (3) TESTIMONY AND EVIDENCE.—The Commis-  
11 sion may take such testimony and receive such evi-  
12 dence as the Commission considers appropriate to  
13 carry out this section.

14 (4) SPECIFIED.—At least one hearing shall be  
15 held in Washington, District of Columbia, for the  
16 purpose of taking testimony of representatives of  
17 Federal agencies, national organizations, and Mem-  
18 bers of Congress. At least one hearing shall focus on  
19 potential water resource issues relating to climate  
20 change and how to mitigate the harms of climate  
21 change-related weather events.

22 (5) NONSPECIFIED.—Hearings, other than  
23 those referred to in paragraph (4), shall be sched-  
24 uled in distinct geographical regions of the United  
25 States. In conducting such hearings, the Commission

1 should seek to ensure testimony from individuals  
2 with a diversity of experiences, including those who  
3 work on water issues at all levels of government and  
4 in the private sector.

5 (g) INFORMATION AND SUPPORT FROM FEDERAL  
6 AGENCIES.—Upon request of the Commission, the head  
7 of a Federal department or agency shall—

8 (1) provide to the Commission, within 30 days  
9 of the request, such information as the Commission  
10 considers necessary to carry out this section; and

11 (2) detail to temporary duty with the Commis-  
12 sion on a reimbursable basis such personnel as the  
13 Commission considers necessary to carry out this  
14 section.

15 (h) INTERIM REPORTS.—Not later than one year  
16 after the date of the first meeting of the Commission, and  
17 every year thereafter, the Commission shall submit an in-  
18 terim report containing a detailed summary of its  
19 progress, including meetings held and hearings conducted  
20 before the date of the report, to—

21 (1) the President; and

22 (2) Congress.

23 (i) FINAL REPORT.—As soon as practicable, but not  
24 later than 5 years after the date of the first meeting of  
25 the Commission, the Commission shall submit a final re-

1 port containing a detailed statement of the findings and  
2 conclusions of the Commission and recommendations for  
3 legislation and other policies to implement such findings  
4 and conclusions to—

5 (1) the President;

6 (2) the Committee on Natural Resources and  
7 the Committee on Transportation and Infrastructure  
8 of the House of Representatives; and

9 (3) the Committee on Energy and Natural Re-  
10 sources and the Committee on the Environment and  
11 Public Works of the Senate.

12 (j) TERMINATION.—The Commission shall terminate  
13 not later than 30 days after the date on which the Com-  
14 mission transmits a final report under subsection (h)(1).

15 (k) APPLICABILITY OF FEDERAL ADVISORY COM-  
16 MITTEE ACT.—The Federal Advisory Committee Act (5  
17 U.S.C. App. 1 et seq.) shall not apply to the Commission.

18 (l) AUTHORIZATION OF APPROPRIATIONS.—There is  
19 authorized to be appropriated \$12,000,000 to carry out  
20 this section.

21 **SEC. 8703. STUDY OF POTENTIAL IMPACTS OF CLIMATE**  
22 **CHANGE ON WATER RESOURCES AND WATER**  
23 **QUALITY.**

24 (a) NATIONAL ACADEMY STUDY.—The Adminis-  
25 trator of the Environmental Protection Agency shall enter

1 into an arrangement with the National Academy of  
2 Sciences under which the Academy shall—

3 (1) produce a 2-part study that will consist  
4 of—

5 (A) a study that will identify the potential  
6 impacts of climate change on the Nation's wa-  
7 tersheds and water resources, including  
8 hydrological and ecological impacts;

9 (B) a study that will identify the potential  
10 impacts of climate change on water quality, in-  
11 cluding the extent to which Federal and State  
12 efforts under the Federal Water Pollution Con-  
13 trol Act (33 U.S.C. 1251 et seq.) and other  
14 ocean and coastal laws may be affected by cli-  
15 mate change;

16 (C) information, analyses, and data that  
17 will identify, to the maximum extent prac-  
18 ticable, hydrological and temperature changes  
19 by watershed in the United States and that  
20 support the findings made under subparagraphs  
21 (A) and (B); and

22 (D) identification of the scientific con-  
23 sensus, assumptions, and uncertainties related  
24 to predictions of climate change in the United  
25 States;

1           (2) identify the potential impacts of climate  
2 change on the Nation’s water resources, watersheds,  
3 and water quality, including the potential for im-  
4 pacts to wetlands, shoreline erosion, and saltwater  
5 intrusion as a result of sea level rise, and the poten-  
6 tial for significant regional variation in precipitation  
7 events to impact Federal, State, and local efforts to  
8 attain or maintain water quality;

9           (3) assess the extent to which Federal and  
10 State efforts under the Federal Water Pollution  
11 Control Act and other ocean and coastal laws may  
12 be affected by climate change;

13           (4) identify prudent steps to assess emerging  
14 information and identify appropriate response ac-  
15 tions to meet the requirements of such Act, includ-  
16 ing provisions to attain or maintain water quality  
17 standards and for adequate stream flows for wet-  
18 lands and aquatic resources; and

19           (5) recommend, if necessary, potential legisla-  
20 tive or regulatory changes to address impacts of  
21 global climate change on efforts to restore and main-  
22 tain the chemical, physical, and biological integrity  
23 of the Nation’s waters.

24           (b) RECOMMENDATIONS.—Not later than 2 years  
25 after the date of the enactment of this Act, the Adminis-

1 trator shall transmit to Congress a report on the results  
2 of the study under this section.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
4 authorized to be appropriated \$1,500,000 to carry out this  
5 section.

6 **SEC. 8704. IMPACTS OF CLIMATE CHANGE ON CORPS OF**  
7 **ENGINEERS PROJECTS.**

8 (a) IN GENERAL.—The Secretary of the Army shall  
9 ensure that water resources projects and studies carried  
10 out by the Corps of Engineers after the date of enactment  
11 of this Act take into account the potential short and long  
12 term effects of climate change on such projects.

13 (b) CONSIDERATION.—In carrying out this section,  
14 the Secretary shall utilize a representative range of cli-  
15 mate change scenarios, including the current projections  
16 of the United States Global Change Research Program  
17 and the Intergovernmental Panel on Climate Change.

18 (c) REPORT TO CONGRESS.—Not later than one year  
19 after the date of enactment of this Act, the Secretary shall  
20 submit to the Committee on Transportation and Infra-  
21 structure of the House of Representatives and the Com-  
22 mittee on Environment and Public Works of the Senate  
23 a report on the implementation of this section.

1           **PART 2—EMERGENCY MANAGEMENT**

2   **SEC. 8731. EFFECTS OF CLIMATE CHANGE ON FEMA PRE-**  
3                   **PAREDNESS, RESPONSE, RECOVERY, AND**  
4                   **MITIGATION PROGRAMS.**

5           (a) **STUDY.**—The Administrator of the Federal  
6 Emergency Management Agency shall conduct a com-  
7 prehensive study of the increase in demand for the Agen-  
8 cy’s emergency preparedness, response, recovery, and miti-  
9 gation programs and services that may be reasonably an-  
10 ticipated as a result of an increased number and intensity  
11 of natural disasters affected by climate change, including  
12 hurricanes, floods, tornadoes, fires, droughts, and severe  
13 storms.

14           (b) **CONTENTS.**—The study shall include an analysis  
15 of the budgetary and personnel needs of meeting the in-  
16 creased demand for Agency services referred to in sub-  
17 section (a).

18           (c) **REPORT.**—Not later than one year after the date  
19 of enactment of this Act, the Administrator shall submit  
20 to the Committee on Transportation and Infrastructure  
21 of the House of Representatives and the Committee on  
22 Homeland Security and Governmental Affairs of the Sen-  
23 ate a report and any legislative recommendations on the  
24 study conducted under this section.

1 **TITLE IX—ENERGY AND**  
2 **COMMERCE**  
3 **Subtitle A—Promoting Energy**  
4 **Efficiency**

5 **SEC. 9000. SHORT TITLE.**

6 This subtitle may be cited as the “Energy Efficiency  
7 Improvement Act of 2007”.

8 **PART 1—APPLIANCE EFFICIENCY**

9 **SEC. 9001. ENERGY STANDARDS FOR HOME APPLIANCES.**

10 (a) APPLIANCES.—The Energy Policy and Conserva-  
11 tion Act is amended as follows:

12 (1) DEHUMIDIFIERS.—Section 325(cc)(2) (42  
13 U.S.C. 6295(cc)(2)) is amended to read as follows:

14 “(2) Dehumidifiers manufactured on or after October  
15 1, 2012, shall have an Energy Factor that meets or ex-  
16 ceeds the following values:

<b>“Product Capacity (pints/day):</b>	<b>Minimum Energy Factor (liters/ KWh)</b>
Up to 35.00 .....	1.35
35.01-45.00 .....	1.50
45.01-54.00 .....	1.60
54.01-75.00 .....	1.70
Greater than 75.00 .....	2.5.”.

17 (2) RESIDENTIAL CLOTHESWASHERS AND RESI-  
18 DENTIAL DISHWASHERS.—Section 325(g) (42  
19 U.S.C. 6295(g)) is amended by adding at the end  
20 the following new paragraphs:

1       “(9) Clotheswashers manufactured on or after Janu-  
2 ary 1, 2011, shall have—

3               “(A) a Modified Energy Factor of at least 1.26;  
4 and

5               “(B) a water factor of not more than 9.5.

6       “(10) No later than December 31, 2011, the Sec-  
7 retary shall publish a final rule determining whether to  
8 amend the standards in effect for clotheswashers manufac-  
9 tured on or after January 1, 2015. Such rule shall contain  
10 such amendment, if any.

11       “(11) Dishwashers manufactured on or after January  
12 1, 2010, shall—

13               “(A) for standard size dishwashers not exceed  
14 355 kwh/year and 6.5 gallon per cycle; and

15               “(B) for compact size dishwashers not exceed  
16 260 kwh/year and 4.5 gallons per cycle.

17       “(12) No later than January 1, 2015, the Secretary  
18 shall publish a final rule determining whether to amend  
19 the standards for dishwashers manufactured on or after  
20 January 1, 2018. Such rule shall contain such amend-  
21 ment, if any.”.

22               (3) REFRIGERATORS AND FREEZERS.—Section  
23 325(b) (42 U.S.C. 6295(b)) is amended by adding  
24 at the end the following new paragraph:

1       “(4) Not later than December 31, 2010, the Sec-  
2 retary shall publish a final rule determining whether to  
3 amend the standards in effect for refrigerators, refrig-  
4 erator-freezers, and freezers manufactured on or after  
5 January 1, 2014. Such rule shall contain such amend-  
6 ment, if any.”.

7       (b) ENERGY STAR.—Section 324A(d)(2) of the En-  
8 ergy Policy and Conservation Act (42 U.S.C. 6294a(d)(2))  
9 is amended by striking “January 1, 2010” and inserting  
10 “July 1, 2009”.

11 **SEC. 9002. ELECTRIC MOTOR EFFICIENCY STANDARDS.**

12       (a) DEFINITIONS.—Section 340(13) of the Energy  
13 Policy and Conservation Act (42 U.S.C. 6311(13)) is  
14 amended—

15           (1) by redesignating subparagraphs (B)  
16 through (H) as subparagraphs (C) through (I), re-  
17 spectively; and

18           (2) by striking the text of subparagraph (A)  
19 and inserting the following: “The term ‘general pur-  
20 pose electric motor (subtype I)’ means any motor  
21 that meets the definition of ‘General Purpose’ as es-  
22 tablished in the final rule issued by the Department  
23 of Energy for ‘Energy Efficiency Program for Cer-  
24 tain Commercial and Industrial Equipment: Test  
25 Procedures, Labeling, and Certification Require-

1       ments for Electric Motors’ (10 CFR 431), as in ef-  
2       fect on the date of enactment of the Energy Effi-  
3       ciency Improvement Act of 2007.

4               “(B) The term ‘general purpose electric motor  
5       (subtype II)’ means motors incorporating the design  
6       elements of a general purpose electric motor  
7       (subtype I) that are configured as one of the fol-  
8       lowing:

9                       “(i) U-Frame Motors.

10                      “(ii) Design C Motors.

11                      “(iii) Close-coupled pump motors.

12                      “(iv) Footless motors.

13                      “(v) Vertical solid shaft normal thrust  
14       motor (as tested in a horizontal configuration).

15                      “(vi) 8-pole motors (~900 rpm).

16                      “(vii) All poly-phase motors with voltages  
17       up to 600 volts other than 230/460 volts.”.

18       (b) STANDARDS.—

19       (1) AMENDMENT.—Section 342(b) of the Energy  
20       Policy and Conservation Act (42 U.S.C. 6313(b)) is  
21       amended by striking the text of paragraph (1) and insert-  
22       ing the following: “(A) Each general purpose electric  
23       motor (subtype I), except as provided in subparagraph  
24       (B), with a power rating of 1 horsepower or greater, but  
25       not greater than 200 horsepower, manufactured (alone or

1 as a component of another piece of equipment) after the  
2 36-month period beginning on the date of enactment of  
3 the Energy Efficiency Improvement Act of 2007, shall  
4 have a nominal full load efficiency not less than as defined  
5 in NEMA MG-1 (2006) Table 12-12.

6 “(B) Each fire pump motor manufactured (alone or  
7 as a component of another piece of equipment) after the  
8 36-month period beginning on the date of enactment of  
9 the Energy Efficiency Improvement Act of 2007, shall  
10 have nominal full load efficiency not less than as defined  
11 in NEMA MG-1 (2006) Table 12-11.

12 “(C) Each general purpose electric motor (subtype  
13 II) with a power rating of 1 horsepower or greater, but  
14 not greater than 200 horsepower, manufactured (alone or  
15 as a component of another piece of equipment) after the  
16 36-month period beginning on the date of enactment of  
17 the Energy Efficiency Improvement Act of 2007, shall  
18 have a nominal full load efficiency not less than as defined  
19 in NEMA MG-1 (2006) Table 12-11.

20 “(D) Each NEMA Design B, general purpose electric  
21 motor with a power rating of more than 200 horsepower,  
22 but not greater than 500 horsepower, manufactured  
23 (alone or as a component of another piece of equipment)  
24 after the 36-month period beginning on the date of enact-  
25 ment of the Energy Efficiency Improvement Act of 2007,

1 shall have a nominal full load efficiency not less than as  
 2 defined in NEMA MG-1 (2006) Table 12-11.”.

3 (2) EFFECTIVE DATE.—The amendment made by  
 4 paragraph (1) shall take effect 36 months after the date  
 5 of enactment of this Act.

6 **SEC. 9003. RESIDENTIAL BOILERS.**

7 Section 325(f) of the Energy Policy and Conservation  
 8 Act (42 U.S.C. 6925(f)) is amended—

9 (1) in the subsection heading, by inserting  
 10 “AND BOILERS” after “FURNACES”;

11 (2) in paragraph (1), by striking “except that”  
 12 and all that follows through “(B)” and inserting  
 13 “except that”;

14 (3) by redesignating paragraph (3) as para-  
 15 graph (4); and

16 (4) by inserting after paragraph (2) the fol-  
 17 lowing:

18 “(3) BOILERS.—

19 “(A) IN GENERAL.—Subject to subparagraph  
 20 (B), boilers manufactured on or after September 1,  
 21 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water .....	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Steam .....	80%	No Constant Burning Pilot
Oil Hot Water .....	84%	Automatic Means for Adjusting Temperature
Oil Steam .....	82%	None
Electric Hot Water .....	None	Automatic Means for Adjusting Temperature
Electric Steam .....	None	None

1           “(B) AUTOMATIC MEANS FOR ADJUSTING  
2           WATER TEMPERATURE.—

3           “(i) IN GENERAL.—The manufacturer  
4           shall equip each gas, oil and electric hot water  
5           boiler, except boilers equipped with tankless do-  
6           mestic water heating coils, with automatic  
7           means for adjusting the temperature of the  
8           water supplied by the boiler to ensure that an  
9           incremental change in inferred heat load pro-  
10          duces a corresponding incremental change in  
11          the temperature of water supplied.

12          “(ii) SINGLE INPUT RATE.—For a boiler  
13          that fires at one input rate this requirement  
14          may be satisfied by providing an automatic  
15          means that allows the burner or heating ele-  
16          ment to fire only when such means has deter-

1           mined that the inferred heat load cannot be met  
2           by the residual heat of the water in the system.

3           “(iii) NO INFERRED HEAT LOAD.—When  
4           there is no inferred heat load with respect to a  
5           hot water boiler, the automatic means described  
6           in clause (i) and (ii) shall limit the temperature  
7           of the water in the boiler to not more than 140  
8           degrees Fahrenheit.

9           “(iv) OPERATION.—A boiler described in  
10          clause (i) or (ii) shall be operable only when the  
11          automatic means described in clauses (i), (ii),  
12          and (iii) is installed.”.

13 **SEC. 9004. REGIONAL VARIATIONS IN HEATING OR COOL-**  
14 **ING STANDARDS.**

15          (a) CONSUMER APPLIANCES.—Section 325(o) of the  
16 Energy Policy and Conservation Act (42 U.S.C. 6925(o))  
17 is amended by adding at the end the following new para-  
18 graph:

19          “(6)(A) The Secretary may establish regional stand-  
20 ards for space heating and air conditioning products, other  
21 than window-unit air-conditioners and portable space  
22 heaters. For each space heating and air conditioning prod-  
23 uct, the Secretary may establish a national minimum  
24 standard and two more stringent regional standards for  
25 regions determined to have significantly differing climatic

1 conditions. Any standards set for any such region shall  
2 achieve the maximum level of energy savings that are tech-  
3 nically feasible and economically justified within that re-  
4 gion. As a preliminary step to determining the economic  
5 justifiability of establishing any such regional standard,  
6 the Secretary shall conduct a study involving stakeholders,  
7 including but not limited to a representative from the Na-  
8 tional Institute of Standards and Technology; representa-  
9 tives of nongovernmental advocacy organizations; rep-  
10 resentatives of product manufacturers, distributors, and  
11 installers; representatives of the gas and electric utility in-  
12 dustries; and such other individuals as the Secretary may  
13 designate. Such study shall determine the potential bene-  
14 fits and consequences of prescribing regional standards for  
15 heating and cooling products, and may, if favorable to  
16 such standards, constitute the evidence of economic justifi-  
17 ability required under this Act. Regional boundaries shall  
18 follow State borders and only include contiguous States  
19 (except Alaska and Hawaii), except that on the request  
20 of a State, the Secretary may divide that State to include  
21 a part of that State in each of two regions.

22       “(B) If the Secretary establishes regional standards,  
23 it shall be unlawful under section 332 to offer for sale  
24 at retail, sell at retail, or install noncomplying products  
25 except within the specified regions.

1       “(C)(i) Except as provided in clause (ii), no product  
2 manufactured to a regional standard established pursuant  
3 to subparagraph (A) shall be distributed in commerce  
4 without a prominent label affixed to the product which in-  
5 cludes at the top of the label, in print of not less than  
6 14-point type, the following: ‘It is a violation of Federal  
7 law for this product to be installed in any State outside  
8 the region shaded on the map printed on this label.’.  
9 Below this notice shall appear a map of the United States  
10 with clearly defined State boundaries and names, and with  
11 all States in which the product meets or exceeds the stand-  
12 ard established pursuant to subparagraph (A) shaded in  
13 a color or a manner as to be easily visible without obscur-  
14 ing the State boundaries and names. Below the map shall  
15 be printed on each label the following: ‘It is a violation  
16 of Federal law for this label to be removed, except by the  
17 owner and legal resident of any single-family home in  
18 which this product is installed.’.

19       “(ii) A product manufactured that meets or exceeds  
20 all regional standards established under this paragraph  
21 shall bear a prominent label affixed to the product which  
22 includes at the top of the label, in print of not less than  
23 14-point type the following: ‘This product has achieved an  
24 energy efficiency rating under Federal law allowing its in-  
25 stallation in any State.’.

1       “(D) Manufacturers of space heating and air condi-  
2       tioning equipment subject to regional standards estab-  
3       lished under this paragraph shall obtain and retain  
4       records on the intended installation locations of the equip-  
5       ment sold, and shall make such records available to the  
6       Secretary on request.”.

7       (b) INDUSTRIAL EQUIPMENT.—Section 342(a) of the  
8       Energy Policy and Conservation Act (42 U.S.C. 6313(a))  
9       is amended by adding at the end the following new para-  
10      graph:

11      “(10)(A) The Secretary may establish regional stand-  
12      ards for space heating and air conditioning products sub-  
13      ject to this subsection. For each space heating and air con-  
14      ditioning product, the Secretary may establish a national  
15      minimum standard and two more stringent regional stand-  
16      ards for regions determined to have significantly differing  
17      climatic conditions. Any standards set for any such region  
18      shall achieve the maximum level of energy savings that  
19      are technically feasible and economically justified within  
20      that region. Regional boundaries shall follow State borders  
21      and only include contiguous States (except Alaska and  
22      Hawaii), except that on the request of a State, the Sec-  
23      retary may divide that State to include a part of that State  
24      in each of two regions.

1 “(B) If the Secretary establishes regional standards,  
2 it shall be unlawful under section 345 to offer for sale  
3 at retail, sell at retail, or install noncomplying products  
4 except within the specified regions.

5 “(C) Manufacturers of space heating and air condi-  
6 tioning equipment subject to regional standards estab-  
7 lished under this paragraph shall obtain and retain  
8 records on the intended installation locations of the equip-  
9 ment sold, and shall make such records available to the  
10 Secretary on request.”.

11 **SEC. 9005. PROCEDURE FOR PRESCRIBING NEW OR AMEND-**  
12 **ED STANDARDS.**

13 Section 325(p) of the Energy Policy and Conserva-  
14 tion Act (42 U.S.C. 6925(p)) is amended—

15 (1) by striking paragraph (1); and

16 (2) by redesignating paragraphs (2) through  
17 (4) as paragraphs (1) through (3), respectively.

18 **SEC. 9006. EXPEDITING APPLIANCE STANDARDS**  
19 **RULEMAKINGS.**

20 (a) **DIRECT FINAL RULE.**—Section 325(p) of the En-  
21 ergy Policy and Conservation Act (42 U.S.C. 6295(p)) is  
22 amended by adding a new paragraph (4) as follows:

23 “(4) If manufacturers of any type (or class) of  
24 covered products or covered equipment, States, and  
25 efficiency advocates, or persons determined by the

1 Secretary to fully represent such parties, submit to  
2 the Secretary a joint recommendation of an energy  
3 or water conservation standard and the Secretary  
4 determines that the recommended standard complies  
5 with subsection (o) or section 342(a)(6)(B), as appli-  
6 cable, to that type (or class) of covered products or  
7 covered equipment to which the standard would  
8 apply, the Secretary may then issue a direct final  
9 rule including the standard recommended. If the  
10 Secretary determines that a direct final rule cannot  
11 be issued based on such a submitted joint rec-  
12 ommendation, the Secretary shall publish a deter-  
13 mination with an explanation as to why the joint  
14 recommendation does not comply with this para-  
15 graph. For purposes of this paragraph, the term ‘di-  
16 rect final rule’ means a final rule published the same  
17 day with a parallel notice of proposed rulemaking  
18 that proposes a new or amended energy or water  
19 conservation standard that is identical to the stand-  
20 ard set forth in the final rule. There shall be a 110-  
21 day period for public comment with respect to the  
22 direct final rule. Not later than 10 days after the ex-  
23 piration of such 110-day period, the Secretary shall  
24 publish a notice responding to comments received  
25 with respect to the direct final rule. The Secretary

1 shall withdraw a direct final rule promulgated pur-  
2 suant to this paragraph within 120 days after publi-  
3 cation in the Federal Register if the Secretary re-  
4 ceives, with respect to the direct final rule, one or  
5 more adverse public comments or any alternate joint  
6 recommendation and, based on the rulemaking  
7 record, the Secretary determines that such adverse  
8 comments or alternate joint recommendation may  
9 provide a reasonable basis for withdrawing the direct  
10 final rule under subsection (o), section 342(a)(6)(B),  
11 or any applicable law. In such a case, the Secretary  
12 shall then proceed with the parallel notice of pro-  
13 posed rulemaking, and shall identify in a notice pub-  
14 lished in the Federal Register the reasons for the  
15 withdrawal of the direct final rule. A direct final rule  
16 that is withdrawn in accordance with this paragraph  
17 shall not be considered final for purposes of sub-  
18 section (o)(1) of this section. No person shall be  
19 found in violation of this part for noncompliance  
20 with a direct final rule that is withdrawn under this  
21 paragraph, if that person has complied with the ap-  
22 plicable standard in effect under this part imme-  
23 diately prior to issuance of that direct final rule.”.

24 (b) CONFORMING AMENDMENT.— Section 345(b)(1)  
25 of the Energy Policy and Conservation Act (42 U.S.C.

1 6316(b)(1)) is amended by inserting after “section” the  
2 first time it appears “325(p)(5), section”.

3 **SEC. 9007. CORRECTION OF LARGE AIR CONDITIONER**  
4 **RULE ISSUANCE CONSTRAINT.**

5 (a) DEFINITIONS.—Section 340 of the Energy Policy  
6 and Conservation Act (42 U.S.C. 6311) is amended by  
7 adding the following new paragraphs at the end:

8 “(22) The term ‘single package vertical air con-  
9 ditioner’ means air-cooled commercial package air  
10 conditioning and heating equipment; factory assem-  
11 bled as a single package having its major compo-  
12 nents arranged vertically, which is an encased com-  
13 bination of cooling and optional heating components,  
14 is intended for exterior mounting on, adjacent inte-  
15 rior to, or through an outside wall; and is powered  
16 by a single- or three-phase current. It may contain  
17 separate indoor grille(s), outdoor louvers, various  
18 ventilation options, indoor free air discharge, duct-  
19 work, well plenum, or sleeve. Heating components  
20 may include electrical resistance, steam, hot water,  
21 or gas, but may not include reverse cycle refrigera-  
22 tion as a heating means.

23 “(23) The term ‘single package vertical heat  
24 pump’ means a single package vertical air condi-  
25 tioner that utilizes reverse cycle refrigeration as its

1 primary heat source, that may include secondary  
2 supplemental heating by means of electrical resist-  
3 ance, steam, hot water, or gas.”.

4 (b) STANDARDS.—Section 342(a) of the Energy Pol-  
5 icy and Conservation Act (42 U.S.C. 6313(a)) is amend-  
6 ed—

7 (1) in each of paragraphs (1) and (2), by in-  
8 serting after “heating equipment” in the first sen-  
9 tence “, including single package vertical air condi-  
10 tioners and single package vertical heat pumps,”;

11 (2) in paragraph (1), by striking “but before  
12 January 1, 2010,”;

13 (3) in each of paragraphs (7), (8), and (9), by  
14 inserting after “heating equipment” in the first sen-  
15 tence “, excluding single package vertical air condi-  
16 tioners and single package vertical heat pumps,”;

17 (4) in paragraph (7)—

18 (A) by striking “manufactured on or after  
19 January 1, 2010,”;

20 (B) in each of subparagraphs (A), (B), and  
21 (C), by striking “The” and inserting “For  
22 equipment manufactured on or after January 1,  
23 2010, the”; and

24 (C) by adding at the end the following new  
25 subparagraphs:

1           “(D) For equipment manufactured on or after  
2           the later of January 1, 2008, or the date six months  
3           after enactment of this section, the minimum sea-  
4           sonal energy efficiency ratio of air-cooled three-phase  
5           electric central air conditioners and central air con-  
6           ditioning heat pumps less than 65,000 Btu per hour  
7           (cooling capacity), split systems, shall be 13.0.

8           “(E) For equipment manufactured on or after  
9           the later of January 1, 2008, or the date six months  
10          after enactment of this section, minimum seasonal  
11          energy efficiency ratio of air-cooled three-phase elec-  
12          tric central air conditioners and central air condi-  
13          tioning heat pumps less than 65,000 Btu per hour  
14          (cooling capacity), single package, shall be 13.0.

15          “(F) For equipment manufactured on or after  
16          the later of January 1, 2008, or the date six months  
17          after enactment of this section, minimum heating  
18          seasonal performance factor of air-cooled three-  
19          phase electric central air conditioning heat pumps  
20          less than 65,000 Btu per hour (cooling capacity),  
21          split systems, shall be 7.7.

22          “(G) For equipment manufactured on or after  
23          the later of January 1, 2008, or the date six months  
24          after enactment of this section, the minimum heat-  
25          ing seasonal performance factor of air-cooled three-

1 phase electric central air conditioning heat pumps  
2 less than 65,000 Btu per hour (cooling capacity),  
3 single package, shall be 7.7.”; and

4 (5) by adding the following new paragraphs at  
5 the end:

6 “(11) Single package vertical air conditioners and  
7 single package vertical heat pumps manufactured on or  
8 after January 1, 2010, shall meet the following standards:

9 “(A) The minimum energy efficiency ratio of  
10 single package vertical air conditioners less than  
11 65,000 Btu per hour (cooling capacity), single-  
12 phase, shall be 9.0.

13 “(B) The minimum energy efficiency ratio of  
14 single package vertical air conditioners less than  
15 65,000 Btu per hour (cooling capacity), three-phase,  
16 shall be 9.0.

17 “(C) The minimum energy efficiency ratio of  
18 single package vertical air conditioners at or above  
19 65,000 Btu per hour (cooling capacity) but less than  
20 135,000 Btu per hour (cooling capacity), shall be  
21 8.9.

22 “(D) The minimum energy efficiency ratio of  
23 single package vertical air conditioners at or above  
24 135,000 Btu per hour (cooling capacity) but less

1 than 240,000 Btu per hour (cooling capacity), shall  
2 be 8.6.

3 “(E) The minimum energy efficiency ratio of  
4 single package vertical heat pumps less than 65,000  
5 Btu per hour (cooling capacity), single-phase, shall  
6 be 9.0; and the minimum coefficient of performance  
7 in the heating mode shall be 3.0.

8 “(F) The minimum energy efficiency ratio of  
9 single package vertical heat pumps less than 65,000  
10 Btu per hour (cooling capacity), three-phase, shall  
11 be 9.0; and the minimum coefficient of performance  
12 in the heating mode shall be 3.0.

13 “(G) The minimum energy efficiency ratio of  
14 single package vertical heat pumps at or above  
15 65,000 Btu per hour (cooling capacity) but less than  
16 135,000 Btu per hour (cooling capacity), shall be  
17 8.9; and the minimum coefficient of performance in  
18 the heating mode shall be 3.0.

19 “(H) The minimum energy efficiency ratio of  
20 single package vertical heat pumps at or above  
21 135,000 Btu per hour (cooling capacity) but less  
22 than 240,000 Btu per hour (cooling capacity), shall  
23 be 8.6; and the minimum coefficient of performance  
24 in the heating mode shall be 2.9.

1       “(12) Not later than 36 months after the date of en-  
2 actment of this paragraph, the Secretary shall review the  
3 most recently published ASHRAE/IES Standard 90.1  
4 with respect to single package vertical air conditioners and  
5 single package vertical heat pumps according to the proce-  
6 dures established in paragraph (6).”.

7 **SEC. 9008. DEFINITION OF ENERGY CONSERVATION STAND-**  
8 **ARD.**

9       Section 321 of the Energy Policy and Conservation  
10 Act (42 U.S.C. 6291) is amended by striking paragraph  
11 (6) and inserting the following:

12               “(6) ENERGY CONSERVATION STANDARD.—

13                       “(A) IN GENERAL.—The term ‘energy con-  
14 servation standard’ means 1 or more perform-  
15 ance standards that—

16                               “(i) for covered products (excluding  
17 clothes washers, dishwashers, showerheads,  
18 faucets, water closets, and urinals), pre-  
19 scribe a minimum level of energy efficiency  
20 or a maximum quantity of energy use, de-  
21 termined in accordance with test proce-  
22 dures prescribed under section 323;

23                               “(ii) for showerheads, faucets, water  
24 closets, and urinals, prescribe a minimum  
25 level of water efficiency or a maximum

1 quantity of water use, determined in ac-  
2 cordance with test procedures prescribed  
3 under section 323; and

4 “(iii) for clothes washers and dish-  
5 washers—

6 “(I) prescribe a minimum level of  
7 energy efficiency or a maximum quan-  
8 tity of energy use, determined in ac-  
9 cordance with test procedures pre-  
10 scribed under section 323; and

11 “(II) may include a minimum  
12 level of water efficiency or a maximum  
13 quantity of water use, determined in  
14 accordance with those test procedures.

15 “(B) INCLUSIONS.—The term ‘energy con-  
16 servation standard’ includes—

17 “(i) 1 or more design requirements, if  
18 the requirements were established—

19 “(I) on or before the date of en-  
20 actment of this subclause; or

21 “(II) as part of a consensus  
22 agreement under section 325(p)(5);  
23 and

1                   “(ii) any other requirements that the  
2                   Secretary may prescribe under section  
3                   325(r).

4                   “(C) EXCLUSION.—The term ‘energy con-  
5                   servation standard’ does not include a perform-  
6                   ance standard for a component of a finished  
7                   covered product, unless regulation of the com-  
8                   ponent is authorized or established pursuant to  
9                   this title.”.

10 **SEC. 9009. IMPROVING SCHEDULE FOR STANDARDS UPDAT-**  
11 **ING AND CLARIFYING STATE AUTHORITY.**

12                   (a) CONSUMER APPLIANCES.—Section 325(m) of the  
13 Energy Policy and Conservation Act (42 U.S.C. 6295(m))  
14 is amended to read as follows:

15                   “(m) FURTHER RULEMAKING.—(1) Not later than 6  
16 years after issuance of any final rule establishing or  
17 amending a standard, as required for a product under this  
18 part, the Secretary shall publish either—

19                   “(A) a notice of the Secretary’s determination  
20 that standards for that product do not need to be  
21 amended, based on the criteria in subsection (n)(2);  
22 or

23                   “(B) a notice of proposed rulemaking including  
24 new proposed standards based on the criteria in sub-  
25 section (o) and the procedures in subsection (p).

1 In either case, the Secretary shall also publish a notice  
2 stating that the Department’s analysis is publicly avail-  
3 able, and provide opportunity for written comment.

4 “(2) Not later than 2 years after a notice is issued  
5 under paragraph (1)(B), the Secretary shall publish a  
6 final rule amending the standard for the product. Not  
7 later than 3 years after a determination under paragraph  
8 (1)(A), the Secretary shall make a new determination and  
9 publication under paragraph (1)(A) or (B).

10 “(3) An amendment prescribed under this subsection  
11 shall apply to products manufactured after a date which  
12 is 3 years after publication of the final rule establishing  
13 a standard, except that a manufacturer shall not be re-  
14 quired to apply new standards to a product with respect  
15 to which other new standards have been required within  
16 the prior 6 years.

17 “(4) The Secretary shall promptly submit to the  
18 Committee on Energy and Commerce of the House of  
19 Representatives and the Committee on Energy and Nat-  
20 ural Resources of the Senate—

21 “(A) a progress report every 180 days on com-  
22 pliance with this section, including a specific plan to  
23 remedy any failures to comply with deadlines for ac-  
24 tion set forth in this section; and

1           “(B) all required reports to the Court or to any  
2 party to the Consent Decree in State of New York  
3 v Bodman, Consolidated Civil Actions No.05 Civ.  
4 7807 and No.05 Civ. 7808.”.

5           (b) INDUSTRIAL EQUIPMENT.—Section 342(a)(6) of  
6 the Energy Policy and Conservation Act (42 U.S.C.  
7 6313(a)(6)) is amended—

8           (1) by redesignating subparagraph (C) as sub-  
9 paragraph (D); and

10           (2) by amending the remainder of the para-  
11 graph to read as follows:

12           “(6)(A) If ASHRAE/IES Standard 90.1 is  
13 amended with respect to any small, large, or very  
14 large commercial package air conditioning and heat-  
15 ing equipment, packaged terminal air conditioners,  
16 packaged terminal heat pumps, warm-air furnaces,  
17 packaged boilers, storage water heaters, instantane-  
18 ous water heaters, or unfired hot water storage  
19 tanks, the Secretary shall within 6 months publish  
20 in the Federal Register for public comment an anal-  
21 ysis of the energy savings potential of the amended  
22 energy efficiency standards. The Secretary shall es-  
23 tablish an amended uniform national standard for  
24 that product at the minimum level for each effective  
25 date specified in the amended ASHRAE/IES Stand-

1       ard 90.1 within 18 months of the ASHRAE amend-  
2       ment’s publication, unless the Secretary determines,  
3       by rule published in the Federal Register, and sup-  
4       ported by clear and convincing evidence, that adop-  
5       tion of a uniform national standard more stringent  
6       than such amended ASHRAE/IES Standard 90.1  
7       for such product would result in significant addi-  
8       tional conservation of energy and is technologically  
9       feasible and economically justified.

10           “(B) If the Secretary issues a rule containing  
11       such a determination, the rule shall establish such  
12       amended standard, and shall be issued within 30  
13       months of the ASHRAE amendment’s publication.

14           “(C)(i) Not later than 6 years after issuance of  
15       any final rule establishing or amending a standard,  
16       as required for a product under this part, the Sec-  
17       retary shall publish either—

18           “(I) a notice of the Secretary’s determina-  
19       tion that standards for that product do not  
20       need to be amended, based on the criteria in  
21       subparagraph (A); or

22           “(II) a notice of proposed rulemaking in-  
23       cluding new proposed standards based on the  
24       criteria and procedures in subparagraph (B).

1 In either case, the Secretary shall also publish a no-  
2 tice stating that the Department's analysis is pub-  
3 licly available, and provide opportunity for written  
4 comment.

5 “(ii) Not later than 2 years after a notice is  
6 issued under clause (i)(II), the Secretary shall pub-  
7 lish a final rule amending the standard for the prod-  
8 uct. Not later than 3 years after a determination  
9 under clause (i)(I), the Secretary shall make a new  
10 determination and publication under clause (i)(I) or  
11 (II).

12 “(iii) An amendment prescribed under this sub-  
13 paragraph shall apply to products manufactured  
14 after a date which is 3 years after publication of the  
15 final rule establishing a standard, except that a  
16 manufacturer shall not be required to apply new  
17 standards to a product with respect to which other  
18 new standards have been required within the prior  
19 6 years.

20 “(iv) The Secretary shall promptly submit to  
21 the House Committee on Energy and Commerce and  
22 to the Senate Committee on Energy and Natural  
23 Resources a progress report every 180 days on com-  
24 pliance with this paragraph, including a specific plan

1 to remedy any failures to comply with deadlines for  
2 action set forth in this paragraph.”.

3 **SEC. 9010. UPDATING APPLIANCE TEST PROCEDURES.**

4 (a) CONSUMER APPLIANCES.—Section 323(b)(1)(A)  
5 of the Energy Policy and Conservation Act (42 U.S.C.  
6 6923(b)(1)(A)) is amended by striking “The Secretary  
7 may” and all that follows through “paragraph (3)” and  
8 inserting “At least every 7 years the Secretary shall review  
9 test procedures for all covered products and shall—

10 “(i) amend test procedures with respect to any  
11 covered product if the Secretary determines that  
12 amended test procedures would more accurately or  
13 fully comply with the requirements of paragraph (3);  
14 or

15 “(ii) publish notice in the Federal Register of  
16 any determination not to amend a test procedure”.

17 (b) INDUSTRIAL EQUIPMENT.—Section 343(a)(1) of  
18 the Energy Policy and Conservation Act (42 U.S.C.  
19 6314(a)(1)) is amended by striking “The Secretary may”  
20 and all that follows through “this section” and inserting  
21 “At least every 7 years the Secretary shall conduct an  
22 evaluation of each class of covered equipment and—

23 “(A) if the Secretary determines that amended  
24 test procedures would more accurately or fully com-  
25 ply with the requirements of paragraphs (2) and (3),

1 shall prescribe test procedures for such class in ac-  
2 cordance with the provisions of this section; or

3 “(B) shall publish notice in the Federal Reg-  
4 ister of any determination not to amend a test pro-  
5 cedure”.

6 **SEC. 9011. FURNACE FAN STANDARD PROCESS.**

7 Section 325(f)(4)(D) of the Energy Policy and Con-  
8 servation Act (42 U.S.C. 6295(f)(3)(D)), as redesignated  
9 by section 9003(3) of this Act, is amended—

10 (1) by striking “may” and inserting “shall”;

11 and

12 (2) by inserting “not later than July 1, 2013”  
13 after “duct work”.

14 **SEC. 9012. TECHNICAL CORRECTIONS.**

15 (a) Section 135(a)(1)(A)(ii) of the Energy Policy Act  
16 of 2005 (Public Law 109–58) is amended by striking  
17 “C78.1–1978(R1984)” and inserting “C78.3–  
18 1978(R1984)”.

19 (b) Section 325 of the Energy Policy and Conserva-  
20 tion Act (42 U.S.C. 6295) (as amended by section  
21 135(e)(4) of the Energy Policy Act of 2005) is amended—

22 (1) in subsection (v)—

23 (A) in the subsection heading, by striking  
24 “CEILING FANS AND”;

25 (B) by striking paragraph (1); and

1 (C) by redesignating paragraphs (2)  
2 through (4) as paragraphs (1) through (3), re-  
3 spectively; and

4 (2) in subsection (ff)—

5 (A) in paragraph (1)(A)—

6 (i) by striking clause (iii);

7 (ii) by redesignating clause (iv) as  
8 clause (iii); and

9 (iii) in clause (iii)(II) (as so redesign-  
10 nated), by inserting “fans sold for” before  
11 “outdoor”; and

12 (B) in paragraph (4)(C)—

13 (i) in the matter preceding clause (i),  
14 by striking “subparagraph (B)” and in-  
15 serting “subparagraph (A)”;

16 (ii) by striking clause (ii) and insert-  
17 ing the following:

18 “(ii) shall be packaged with lamps to fill all  
19 sockets.”;

20 (C) in paragraph (6), by redesignating  
21 subparagraphs (C) and (D) as clauses (i) and  
22 (ii), respectively, of subparagraph (B); and

23 (D) in paragraph (7), by striking “327”  
24 the second place it appears and inserting  
25 “324”.

1 **SEC. 9013. ENERGY EFFICIENT STANDBY POWER DEVICES.**

2 (a) DEFINITIONS.—In this section:

3 (1) AGENCY.—

4 (A) IN GENERAL.—The term “agency” has  
5 the meaning given the term “Executive agency”  
6 in section 105 of title 5, United States Code.

7 (B) INCLUSIONS.—The term “agency” in-  
8 cludes military departments, as the term is de-  
9 fined in section 102 of title 5, United States  
10 Code.

11 (2) ELIGIBLE PRODUCT.—The term “eligible  
12 product” means a commercially available, off-the-  
13 shelf product that—

14 (A)(i) uses external standby power devices;  
15 or

16 (ii) contains an internal standby power  
17 function; and

18 (B) is included on the list compiled under  
19 subsection (d).

20 (b) FEDERAL PURCHASING REQUIREMENT.—Subject  
21 to subsection (c), if an agency purchases an eligible prod-  
22 uct, the agency shall purchase—

23 (1) an eligible product that uses not more than  
24 1 watt in the standby power consuming mode of the  
25 eligible product; or

1           (2) if an eligible product described in paragraph  
2           (1) is not available, the eligible product with the low-  
3           est available standby power wattage in the standby  
4           power consuming mode of the eligible product.

5           (c) LIMITATION.—The requirements of subsection (b)  
6 shall apply to a purchase by an agency only if—

7           (1) the lower-wattage eligible product is—

8                   (A) lifecycle cost-effective; and

9                   (B) practicable; and

10           (2) the utility and performance of the eligible  
11           product is not compromised by the lower wattage re-  
12           quirement.

13           (d) ELIGIBLE PRODUCTS.—The Secretary of Energy,  
14 in consultation with the Secretary of Defense and the Ad-  
15 ministrator of General Services, shall compile a list of  
16 cost-effective eligible products that shall be subject to the  
17 purchasing requirements of subsection (b).

18 **SEC. 9014. EXTERNAL POWER SUPPLY EFFICIENCY STAND-**  
19 **ARDS.**

20           (a) Section 321 of the Energy Policy and Conserva-  
21 tion Act (42 U.S.C. 6291) is amended—

22           (1) in paragraph (36) by inserting “(A)” before  
23           the text and adding at the end the following:

24                   “(B) The term ‘class A external power supply’  
25           means a device that—

1           “(i) is designed to convert line voltage AC  
2 input into lower voltage AC or DC output;

3           “(ii) is able to convert to only one AC or  
4 DC output voltage at a time;

5           “(iii) is sold with, or intended to be used  
6 with, a separate end-use product that con-  
7 stitutes the primary load;

8           “(iv) is contained in a separate physical  
9 enclosure from the end-use product;

10           “(v) is connected to the end-use product  
11 via a removable or hard-wired male/female elec-  
12 trical connection, cable, cord or other wiring;  
13 and

14           “(vi) has nameplate output power less than  
15 or equal to 250 watts.

16           “(C) The term ‘class A external power  
17 supply’ does not include any device that—

18           “(i) requires Federal Food and Drug  
19 Administration listing and approval as a  
20 medical device, as described under section  
21 513 of the Food, Drug, and Cosmetic Act  
22 of 1938; or

23           “(ii) powers the charger of a detach-  
24 able battery pack or charges the battery of

1 a product that is fully or primarily motor  
2 operated.

3 “(D) The term ‘active mode’ means the  
4 mode of operation when an external power sup-  
5 ply is connected to the main electricity supply  
6 and the output is connected to a load.

7 “(E) The term ‘no-load mode’ means the  
8 mode of operation when an external power sup-  
9 ply is connected to the main electricity supply  
10 and the output is not connected to a load.”

11 (2) by adding at the end the following:

12 “(52) The term ‘detachable battery’ means a  
13 battery that is contained in a separate enclosure  
14 from the product and is intended to be removed or  
15 disconnected from the product for recharging.”.

16 (b) Section 323 of the Energy Policy and Conserva-  
17 tion Act (42 U.S.C. 6293) is amended in subsection (b)  
18 by adding at the end the following:

19 “(17) Test procedures for class A external  
20 power supplies shall be based upon the U.S. Envi-  
21 ronmental Protection Agency’s ‘Test Method for  
22 Calculating the Energy Efficiency of Single-Voltage  
23 External AC–DC and AC–AC Power Supplies’, Au-  
24 gust 11, 2004, provided that the test voltage speci-

1       fied in section 4(d) of such test method shall be only  
 2       115 volts, 60 Hz.”.

3       (c) Section 325 of the Energy Policy and Conserva-  
 4       tion Act (42 U.S.C. 6295) is amended in subsection (u)  
 5       by adding at the end the following:

6               “(6) EFFICIENCY STANDARDS FOR CLASS A EX-  
 7       TERNAL POWER SUPPLIES.—

8               “(A) Class A external power supplies man-  
 9       ufactured on or after July 1, 2008 (or the date  
 10       of enactment of this paragraph, if later) shall  
 11       meet the following standards:

<b>“Active Mode</b>	
<b>“Nameplate Output</b>	<b>Required Efficiency (decimal equivalent of a per- centage)</b>
Less than 1 watt	0.5 times the Nameplate Output
From 1 watt to not more than 51 watts	The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5
Greater than 51 watts	0.85
<b>“No-Load Mode</b>	
<b>“Nameplate Output</b>	<b>Maximum Consumption</b>
Not more than 250 watts	0.5 watts

12               “(B) Notwithstanding paragraph (A), any  
 13       class A external power supply manufactured on  
 14       or after July 1, 2008, and before July 1, 2015,  
 15       and made available by the manufacturer as a

1 service part or a spare part for an end-use  
2 product—

3 “(i) that constitutes the primary load;

4 and

5 “(ii) was manufactured before July 1,  
6 2008,

7 shall not be subject to the requirements of  
8 paragraph (A).

9 “(C) Any class A external power supply  
10 manufactured on or after July 1, 2008 (or the  
11 date of enactment of this paragraph, if later)  
12 shall be clearly and permanently marked in ac-  
13 cordance with the External Power Supply Inter-  
14 national Efficiency Marking Protocol, as ref-  
15 erenced in the ‘Energy Star Program Require-  
16 ments for Single Voltage External AC-DC and  
17 AC-AC Power Supplies, version 1.1’ published  
18 by the Environmental Protection Agency.

19 “(D)(i) Not later than July 1, 2011 the  
20 Secretary shall publish a final rule to determine  
21 whether the standards established under para-  
22 graph (A) should be amended. Such rule shall  
23 provide that any amended standard shall apply  
24 to products manufactured on or after July 1,  
25 2013.

1           “(ii) Not later than July 1, 2015 the Sec-  
2           retary shall publish a final rule to determine  
3           whether the standards established under para-  
4           graph (A) should be amended. Such rule shall  
5           provide that any amended standard shall apply  
6           to products manufactured on or after July 1,  
7           2017.

8           “(7) An energy conservation standard for exter-  
9           nal power supplies shall not constitute an energy  
10          conservation standard for the separate end-use prod-  
11          uct to which it is connected.”.

12 **SEC. 9015. STANDBY MODE.**

13          (a) CONSUMER APPLIANCE REQUIREMENT.—Section  
14 325 of the Energy Policy and Conservation Act (42 U.S.C.  
15 6295) is amended by adding at the end the following new  
16 subsection:

17          “(ii) STANDBY MODE.—

18                 “(1) REQUIREMENT.—Except as provided in  
19                 paragraph (2), any final rule adopted after July 1,  
20                 2012, to set a new or revised energy efficiency  
21                 standard for a covered product shall specify that a  
22                 covered product manufactured on or after the effec-  
23                 tive date of such new or revised standard shall, when  
24                 in standby mode, operate with not more than 1 watt  
25                 of electric power.

1 “(2) EXCEPTIONS.—

2 “(A) EXTENSIONS.—The Secretary may  
3 provide a single extension of up to 2 years for  
4 compliance with paragraph (1) with respect to  
5 a covered product if the Secretary finds that  
6 such extension is appropriate.

7 “(B) EXEMPTIONS.—The Secretary may  
8 provide an exemption from the requirement  
9 under paragraph (1) for a covered product,  
10 after public notice and opportunity for com-  
11 ment, if the Secretary finds that—

12 “(i) achieving the requirement is not  
13 technologically feasible and economically  
14 justified for that covered product; or

15 “(ii) such an exemption is warranted  
16 for medical or military reasons.

17 Any exemption provided under this subpara-  
18 graph shall be reviewed at least once every 5  
19 years.”.

20 (b) CONSUMER APPLIANCE TEST PROCEDURES.—

21 Section 323(b) of the Energy Policy and Conservation Act  
22 (42 U.S.C. 6293(b)) is amended by adding at the end the  
23 following new paragraph:

24 “(18) Not later than July 1, 2009, the Secretary  
25 shall issue a final rule establishing test procedures for

1 standby power consumption for all covered products, ex-  
2 cept for products for which the current test procedure al-  
3 ready measures standby power consumption.”.

4 (c) REPEAL.—

5 (1) IN GENERAL.—Section 325(u) of the En-  
6 ergy Policy and Conservation Act (42 U.S.C.  
7 6295(u)), as amended by this subtitle, is amended—

8 (A) by striking paragraph (2); and

9 (B) by redesignating paragraphs (3)  
10 through (7) as paragraphs (2) through (6), re-  
11 spectively.

12 (2) EFFECTIVE DATE.—The amendments made  
13 by paragraph (1) shall take effect on the date de-  
14 scribed in section 325(ii)(I) of the Energy Policy  
15 and Conservation Act as, added by subsection (a) of  
16 this section.

17 (d) INDUSTRIAL EQUIPMENT REQUIREMENT.—Sec-  
18 tion 342 of the Energy Policy and Conservation Act (42  
19 U.S.C. 6313) is amended by adding at the end the fol-  
20 lowing new subsection:

21 “(f) STANDBY POWER.—

22 “(1) REQUIREMENT.—Except as provided in  
23 paragraph (2), any final rule adopted after July 1,  
24 2012, to set a new or revised energy efficiency  
25 standard for covered equipment shall specify that

1 covered equipment manufactured on or after the ef-  
2 fective date of such new or revised standard shall,  
3 when in standby mode, operate with not more than  
4 1 watt of electric power.

5 “(2) EXCEPTIONS.—

6 “(A) EXTENSIONS.—The Secretary may  
7 provide a single extension of up to 5 years for  
8 compliance with paragraph (1) with respect to  
9 a covered equipment if the Secretary finds that  
10 such extension is appropriate.

11 “(B) EXEMPTIONS.—The Secretary may  
12 provide an exemption from the requirement  
13 under paragraph (1) for covered equipment,  
14 after public notice and opportunity for com-  
15 ment, if the Secretary finds that—

16 “(i) achieving the requirement is not  
17 technologically feasible and economically  
18 justified for that covered equipment; or

19 “(ii) such an exemption is warranted  
20 for medical or military reasons.

21 Any exemption provided under this subpara-  
22 graph shall be reviewed at least once every 5  
23 years.”.

24 (e) INDUSTRIAL EQUIPMENT TEST PROCEDURES.—

25 Section 343(a) of the Energy Policy and Conservation Act

1 (42 U.S.C. 6314(a)) is amended by adding at the end the  
2 following new paragraph:

3 “(9) Not later than July 1, 2009, the Secretary shall  
4 issue a final rule establishing test procedures for standby  
5 power consumption for all covered equipment, except for  
6 equipment for which the current test procedure already  
7 measures standby power consumption.”.

8 **PART 2—LIGHTING EFFICIENCY**

9 **SEC. 9021. EFFICIENT LIGHT BULBS.**

10 (a) PROHIBITION.—

11 (1) REGULATIONS.—Not later than 1 year after  
12 the date of enactment of this Act, the Secretary of  
13 Energy shall issue regulations—

14 (A) prohibiting the sale of 100 watt gen-  
15 eral service incandescent lamps after January  
16 1, 2012, unless those lamps emit at least 60  
17 lumens per watt;

18 (B) prohibiting the sale of general service  
19 lamps manufactured after the effective dates  
20 shown in the table below that do not meet the  
21 minimum efficacy levels (lumens/watt) shown in  
22 the following table:

## Minimum Efficacy Levels and Effective Dates

Lumen Range (Lumens)	Minimum Efficacy (Lumens/Watt)	Effective Dates
200-449	15	1/1/2014
450-699	17	1/1/2014
700-999	20	1/1/2013
1000-1500	22	1/1/2012
1501-3000	24	1/1/2012

1 (C) after January 1, 2020, prohibiting the  
2 sale of general service lamps that emit less than  
3 300 percent of the average lumens per watt  
4 emitted by 100 watt incandescent general serv-  
5 ice lamps that are commercially available as of  
6 the date of enactment of this Act;

7 (D) establishing a minimum color ren-  
8 dering index (CRI) of 80 or higher for all gen-  
9 eral service lamps manufactured as of the effec-  
10 tive dates in subparagraph (B); and

11 (E) prohibiting the manufacture or import  
12 for sale in the United States of an adapter de-  
13 vice designed to allow a lamp with a different  
14 base to fit into a medium screw base socket  
15 manufactured after January 1, 2009.

16 (2) EXEMPTIONS.—The regulations issued  
17 under paragraph (1) shall include procedures for the  
18 Secretary to exempt specialty lamps from the re-

1 requirements of paragraph (1). The Secretary may  
2 provide such an exemption only in cases where the  
3 Secretary finds, after a hearing and opportunity for  
4 public comment, that it is not technically feasible to  
5 serve a specialized lighting application, such as a  
6 military, medical, public safety application, or in cer-  
7 tified historic lighting applications using bulbs that  
8 meet the requirements of paragraph (1). In addition,  
9 the Secretary shall include as an additional criterion  
10 that exempted products are unlikely to be used in  
11 the general service lighting applications.

12 (3) ADDITIONAL LAMPS TYPES.—

13 (A) Manufacturers of rough service, vibra-  
14 tion service, vibration resistant, appliance, shat-  
15 ter resistant, and three-way lamps shall report  
16 annual sales volume to the Secretary. If the  
17 Secretary determines that annual sales volume  
18 for any of these lamp types increases by 100  
19 percent relative to 2009 sales in any later year,  
20 then such lamps shall be subject to the fol-  
21 lowing standards:

22 (i) Appliance lamps shall use no more  
23 than 40 watts.

24 (ii) Rough service lamps shall use no  
25 more than 40 watts.

1 (iii) Vibration service and vibration  
2 resistant lamps shall use no more than 40  
3 watts.

4 (iv) Three-way lamps shall comply  
5 with the standards in paragraph (1) at  
6 each level of rated lumen output.

7 (B) Rough service, vibration service, vibra-  
8 tion resistant, appliance, shatter resistant, and  
9 three-way lamps shall be available for sale at  
10 retail in single packs only.

11 (4) CIVIL PENALTY.—The Secretary of Energy  
12 shall include in regulations under this subsection a  
13 schedule of appropriate civil penalties for violations  
14 of the prohibitions under this subsection. Such pen-  
15 alties shall be in an amount sufficient to ensure  
16 compliance with this section.

17 (5) STATE PREEMPTION.—State standards for  
18 general service lamps are preempted as of the date  
19 of enactment of this Act, except—

20 (A) any State standard already enacted or  
21 adopted as of the date of enactment of this Act  
22 may be enforced until the Federal effective  
23 dates for each lamp category, and such States  
24 may modify existing State standards for general

1 service lamps to conform with the standards in  
2 paragraph (1) at any time;

3 (B) any State standard identical to the  
4 standards in paragraph (1)(B) with an effective  
5 date no sooner than January 1, 2015; and

6 (C) any State standard identical to Fed-  
7 eral standards, after such Federal standards  
8 are in effect.

9 (6) DEFINITIONS.—For purposes of this sec-  
10 tion, the following definitions apply:

11 (A) The term “general service lamp”  
12 means a nonreflectorized lamp that—

13 (i) is intended for general service ap-  
14 plications;

15 (ii) has a medium screw base;

16 (iii) has an initial lumen output no  
17 less than 200 lumens and no more than  
18 3000 lumens;

19 (iv) has an input voltage range at  
20 least partially within 110 and 130 volts;

21 (v) has a A-15, A-19, A-21, A-23,  
22 A-25, PS-25, PS-30, BT-14.5, BT-15,  
23 CP-19, TB-19, CA-22, or similar shape  
24 as defined in ANSI C78.20-2003; and

1 (vi) has a bulb finish of the frosted,  
2 clear, soft white, modified spectrum, en-  
3 hanced spectrum, full spectrum, or equiva-  
4 lent type.

5 The following incandescent lamps are not gen-  
6 eral service lamps: appliance, black light, bug,  
7 colored, infrared, left-hand thread, marine, ma-  
8 rine signal service, mine service, plant light, re-  
9 flector, rough service, shatter resistant, sign  
10 service, silver bowl, three-way, traffic signal,  
11 and vibration service or vibration resistant.

12 (B) The term “appliance lamp” means any  
13 lamp specifically designed to operate in a house-  
14 hold appliance. Examples of appliance lamps in-  
15 clude oven lamps, refrigerator lamps, and vacu-  
16 um cleaner lamps.

17 (C) The term “black light lamp” means a  
18 lamp that emits radiant energy in the UV-A  
19 band (315-400 nm) and is designated and mar-  
20 keted as a “black light”.

21 (D) The term “bug lamp” means a lamp  
22 that contains a filter to suppress the blue and  
23 green portions of the visible spectrum and is  
24 designated and marketed as a “bug light”.

1           (E) The term “colored incandescent lamp”  
2 means an incandescent lamp designated and  
3 marketed as a colored lamp that has a CRI of  
4 less than 50, as determined according to the  
5 test method given in CIE publication 13.2, and  
6 has a correlated color temperature less than  
7 2,500K, or greater than 4,600K, where cor-  
8 related color temperature is defined as the ab-  
9 solute temperature of a blackbody whose chro-  
10 maticity nearly resembles that of the light  
11 source.

12           (F) The term “infrared lamp” means a  
13 lamp that radiates predominately in the infra-  
14 red region of the electromagnetic spectrum, and  
15 where visible radiation is not of principal inter-  
16 est.

17           (G) The term “lamp” means an electrical  
18 appliance that includes a glass envelope and  
19 produces optical radiation for the purpose of  
20 visual illumination, designed to be installed into  
21 a luminaire by means of an integral lamp-hold-  
22 er. Types of lamps include incandescent, fluo-  
23 rescent, and high intensity discharge (high  
24 pressure sodium and metal halide).

1           (H) The term “left-handed thread lamp”  
2 means a lamp on which the base screws into a  
3 lamp socket in a counter-clockwise direction,  
4 and screws out of a lamp socket in a clockwise  
5 direction.

6           (I) The term “marine lamp” means a lamp  
7 specifically designed and marketed to operate in  
8 a marine application.

9           (J) The term “marine signal service lamp”  
10 means a lamp specifically designed to provide  
11 signals to marine vessels for seaway safety.

12           (K) The term “mine service lamp” means  
13 a lamp specifically designed and marketed for  
14 use in mine applications.

15           (L) The term “plant light lamp” means a  
16 lamp that contains a filter to suppress yellow  
17 and green portions of the spectrum and is des-  
18 ignated and marketed as a “plant light”.

19           (M) The term “rough service lamp” means  
20 a lamp that has a minimum of 5 supports with  
21 filament configurations similar to but not lim-  
22 ited to C7A, C11, C17, and C22 as listed in  
23 Figure 6–12 of the 9th edition of the IESNA  
24 Lighting handbook, where lead wires are not  
25 counted as supports and that is designated and

1 marketed specifically for “rough service” appli-  
2 cations.

3 (N) The term “shatter resistant lamp”  
4 means a lamp with an external coating on the  
5 bulb wall to resist breakage and which is des-  
6 ignated and marketed as a shatter resistant  
7 lamp.

8 (O) The term “showcase lamp” means a  
9 lamp that has a tubular bulb with a conven-  
10 tional screw base and which is designated and  
11 marketed as a showcase lamp.

12 (P) The term “sign service lamp” means a  
13 lamp of the vacuum type or gas-filled with suf-  
14 ficiently low bulb temperature to permit ex-  
15 posed outdoor use on high-speed flashing cir-  
16 cuits. The designation shall be on the lamp  
17 packaging, and marketing materials shall iden-  
18 tify the lamp as being a sign service lamp.

19 (Q) The term “silver bowl lamp” means a  
20 lamp that has a reflective coating applied di-  
21 rectly to part of the bulb surface and that re-  
22 flects light in a backward direction toward the  
23 lamp base. The designation shall be on the  
24 lamp packaging, and marketing materials shall

1 identify the lamp as being a silver bowl lamp or  
2 similar designation.

3 (R) The term “three-way lamp” means a  
4 lamp that employs two filaments, operated sep-  
5 arately and in combination, to provide three  
6 light levels. The designation shall be on the  
7 lamp packaging, and marketing materials shall  
8 identify the lamp as being a three-way lamp.

9 (S) The term “traffic signal lamp” means  
10 a lamp that is designed with lifetime, wattage,  
11 focal length, filament configuration, mounting,  
12 lamp glass, and lamp base characteristics ap-  
13 propriate for use in traffic signals.

14 (T) The term “vibration service lamp” or  
15 “vibration resistant lamp” means a lamp with  
16 filament configurations similar to but not lim-  
17 ited to C-5, C-7A, or C-9, as listed in Figure  
18 6-12 of the 9th Edition of the IESNA Lighting  
19 Handbook. The lamp is designated and mar-  
20 keted specifically for vibration service or vibra-  
21 tion resistant applications. The designation  
22 shall be on the lamp packaging, and marketing  
23 materials shall identify the lamp as being vibra-  
24 tion resistant or vibration service.

25 (b) INCENTIVE PLAN AND PUBLIC EDUCATION.—

1           (1) INCENTIVE PLAN.—Not later than 6  
2 months after the date of enactment of this Act, the  
3 Secretary of Energy shall transmit to the Congress  
4 a plan for encouraging and providing incentives for  
5 the domestic production of light bulbs by United  
6 States manufacturers that meet the efficacy levels  
7 shown in the table in subsection (a)(1)(B).

8           (2) LABELING RULEMAKING.—The Federal  
9 Trade Commission shall conduct a rulemaking to  
10 consider the effectiveness of current lamp labeling  
11 requirements and to consider alternative labeling ap-  
12 proaches that will help consumers to understand new  
13 high-efficiency lamp products. Such labeling shall in-  
14 clude, at a minimum, information on lighting output  
15 (lumens), input power (watts), efficiency (lumens per  
16 watt), lamp rated lifetime (hours), annual or lifetime  
17 energy operating cost, and any hazardous materials  
18 (such as mercury) that may be contained in lamp  
19 products. The Federal Trade Commission shall com-  
20 plete this rulemaking within one year after the date  
21 of enactment of this Act.

22           (3) NATIONAL SALES DATA TRACKING SYS-  
23 TEM.—The Secretary of Energy shall develop and  
24 implement within one year after the date of enact-  
25 ment of this Act a national sales data tracking sys-

1       tem in conjunction with the National Electrical  
2       Manufacturers Association and other stakeholders  
3       for lamp technologies, including Light Emitting Di-  
4       odes, halogens, incandescents, and compact fluores-  
5       cent lamps.

6       (c) REPORT ON MERCURY USE AND RELEASE.—Not  
7       later than 1 year after the date of enactment of this Act,  
8       the Secretary of Energy, in cooperation with the Adminis-  
9       trator of the Environmental Protection Agency, shall sub-  
10      mit to Congress a report describing recommendations re-  
11      lating to the means by which the Federal Government may  
12      reduce or prevent the release of mercury during the manu-  
13      facture, transportation, storage, or disposal of general  
14      service lamps.

15      **SEC. 9022. INCANDESCENT REFLECTOR LAMPS.**

16      (a) DEFINITIONS.—Section 321 of the Energy Policy  
17      and Conservation Act (42 U.S.C. 6291) is amended—

18              (1) in paragraph (30)(C)(ii)—

19                      (A) in the matter preceding subclause

20                      (I)—

21                              (i) by striking “or similar bulb shapes  
22                              (excluding ER or BR)” and inserting “ER,  
23                              BR, BPAR, or similar bulb shapes”; and

24                              (ii) by striking “2.75” and inserting  
25                              “2.25”; and

1 (B) by striking “is either—” and all that  
2 follows through subclause (II) and inserting  
3 “has a rated wattage that is greater than 40  
4 watts.”; and

5 (2) by adding at the end the following:

6 “(53) The term ‘BPAR incandescent reflector  
7 lamp’ means a reflector lamp as shown in figure  
8 C78.21–278 on page 32 of ANSI C78.21–2003.

9 “(54)(A) The term ‘BR incandescent reflector  
10 lamp’ means a reflector lamp that has—

11 “(i) a bulged section below the major di-  
12 ameter of the bulb and above the approximate  
13 baseline of the bulb, as shown in figure 1 (RB)  
14 on page 7 of ANSI C79.1–1994, incorporated  
15 by reference in section 430.22 of title 10, Code  
16 of Federal Regulations (as in effect on the date  
17 of enactment of this paragraph); and

18 “(ii) a finished size and shape shown in  
19 ANSI C78.21–1989, including the referenced  
20 reflective characteristics in part 7 of ANSI  
21 C78.21.

22 “(B) The term ‘BR30’ refers to a BR incandes-  
23 cent reflector lamp with a diameter of 30/8ths of an  
24 inch and the term ‘BR40’ refers to a BR incandes-

1 cent reflector lamp with a diameter of 40/8ths of an  
2 inch.

3 “(55)(A) The term ‘ER incandescent reflector  
4 lamp’ means a reflector lamp that has—

5 “(i) an elliptical section below the major  
6 diameter of the bulb and above the approximate  
7 baseline of the bulb, as shown in figure 1 (RE)  
8 on page 7 of ANSI C79.1–1994, incorporated  
9 by reference in section 430.22 of title 10, Code  
10 of Federal Regulations (as in effect on the date  
11 of enactment of this paragraph); and

12 “(ii) a finished size and shape shown in  
13 ANSI C78.21–1989, incorporated by reference  
14 in section 430.22 of title 10, Code of Federal  
15 Regulations (as in effect on the date of enact-  
16 ment of this paragraph).

17 “(B) The term ‘ER30’ refers to an ER incan-  
18 descent reflector lamp with a diameter of 30/8ths of  
19 an inch and the term ‘ER40’ refers to an ER incan-  
20 descent reflector lamp with a diameter of 40/8ths of  
21 an inch.

22 “(56) The term ‘R20 incandescent reflector  
23 lamp’ means a reflector lamp that has a face diame-  
24 ter of approximately 2.5 inches, as shown in figure  
25 1(R) on page 7 of ANSI C79.1–1994.”.

1 (b) STANDARDS FOR FLUORESCENT LAMPS AND IN-  
2 CANDESCENT REFLECTOR LAMPS.—Section 325(i) of the  
3 Energy Policy and Conservation Act (42 U.S.C. 6925(i))  
4 is amended by striking paragraph (1) and inserting the  
5 following:

6 “(1) STANDARDS.—

7 “(A) DEFINITION OF EFFECTIVE DATE.—

8 In this paragraph, except as specified in sub-  
9 paragraphs (C) and (D), the term ‘effective  
10 date’ means, with respect to each type of lamp  
11 specified in a table contained in subparagraph  
12 (B), the last day of the period of months cor-  
13 responding to that type of lamp, as specified in  
14 the table, that follows the date of enactment of  
15 the Energy Efficiency Improvement Act of  
16 2007.

17 “(B) MINIMUM STANDARDS.—Each of the  
18 following general service fluorescent lamps and  
19 incandescent reflector lamps manufactured  
20 after the effective date specified in the tables  
21 contained in this paragraph shall meet or ex-  
22 ceed the following lamp efficacy and CRI stand-  
23 ards:

## “FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
4-foot medium bi-pin .....	>35 W	69	75.0	36
	≤35 W	45	75.0	36
2-foot U-shaped .....	>35 W	69	68.0	36
	≤35 W	45	64.0	36
8-foot slimline .....	65 W	69	80.0	18
	≤65 W	45	80.0	18
8-foot high output .....	>100 W	69	80.0	18
	≤100 W	45	80.0	18

## “INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
40–50 .....	10.5	36
51–66 .....	11.0	36
67–85 .....	12.5	36
86–115 .....	14.0	36
116–155 .....	14.5	36
156–205 .....	15.0	36

1                   “(C) EXEMPTIONS.—The standards speci-  
2                   fied in subparagraph (B) shall not apply to the  
3                   following types of incandescent reflector lamps:

4                   “(i) Lamps rated at 50 watts or less  
5                   of the following types: ER30, BR30,  
6                   BR40, and ER40 lamps.

7                   “(ii) Lamps rated at 65 watts of the  
8                   following types: BR30, BR40, and ER40  
9                   lamps.

10                  “(iii) R20 incandescent reflector  
11                  lamps of 45 watts or less.

12                  “(D) EFFECTIVE DATES.—

13                  “(i) ER, BR, AND BPAR LAMPS.—EX-  
14                  cept as provided in subparagraph (A), the

1 standards specified in subparagraph (B)  
2 shall apply with respect to ER incandes-  
3 cent reflector lamps, BR incandescent re-  
4 flector lamps, BPAR incandescent reflector  
5 lamps, and similar bulb shapes on and  
6 after January 1, 2008.

7 “(ii) LAMPS BETWEEN 2.25–2.75  
8 INCHES IN DIAMETER.—The standards  
9 specified in subparagraph (B) shall apply  
10 with respect to incandescent reflector  
11 lamps with a diameter of more than 2.25  
12 inches, but not more than 2.75 inches, on  
13 and after January 1, 2008.”.

14 **SEC. 9023. USE OF ENERGY EFFICIENT LIGHTING FIXTURES**  
15 **AND BULBS.**

16 (a) IN GENERAL.—Chapter 33 of title 40, United  
17 States Code, is amended—

18 (1) by redesignating sections 3313, 3314, and  
19 3315 as sections 3314, 3315, and 3316, respectively;  
20 and

21 (2) by inserting after section 3312 the fol-  
22 lowing:

1 **“§ 3313. Use of energy efficient lighting fixtures and**  
2 **bulbs**

3 “(a) CONSTRUCTION AND ALTERATION OF PUBLIC  
4 BUILDINGS.—Each public building constructed or signifi-  
5 cantly altered by the Administrator of General Services  
6 shall be equipped, to the maximum extent feasible as de-  
7 termined by the Administrator, with lighting fixtures and  
8 bulbs that are energy efficient.

9 “(b) MAINTENANCE OF PUBLIC BUILDINGS.—Each  
10 lighting fixture or bulb that is replaced by the Adminis-  
11 trator in the normal course of maintenance of public build-  
12 ings shall be replaced, to the maximum extent feasible as  
13 determined by the Administrator, with a lighting fixture  
14 or bulb that is energy efficient.

15 “(c) CONSIDERATIONS.—In making a determination  
16 under this section concerning the feasibility of installing  
17 a lighting fixture or bulb that is energy efficient, the Ad-  
18 ministrator shall consider—

19 “(1) the life cycle cost effectiveness of the fix-  
20 ture or bulb;

21 “(2) the compatibility of the fixture or bulb  
22 with existing equipment;

23 “(3) whether use of the fixture or bulb could re-  
24 sult in interference with productivity;

25 “(4) the aesthetics relating to use of the fixture  
26 or bulb; and

1           “(5) such other factors as the Administrator  
2 determines appropriate.

3           “(d) ENERGY STAR.—A lighting fixture or bulb shall  
4 be treated as being energy efficient for purposes of this  
5 section if—

6           “(1) the fixture or bulb is certified under the  
7 Energy Star program established by section 324A of  
8 the Energy Policy and Conservation Act (42 U.S.C.  
9 6294a);

10           “(2) in the case of all LED luminaires, lamps,  
11 and systems whose efficacy (lumens per watt) and  
12 Color Rendering Index (CRI) meet the requirements  
13 for minimum luminaire efficacy and CRI for the En-  
14 ergy Star certification, as verified by an independent  
15 third-party testing laboratory that conducts its tests  
16 according to the procedures and recommendations of  
17 the Illuminating Engineering Society of North  
18 America, even if these luminaires, lamps, and sys-  
19 tems have not received such certification; or

20           “(3) the Administrator has otherwise deter-  
21 mined that the fixture or bulb is energy efficient.

22           “(e) SIGNIFICANT ALTERATIONS.—A public building  
23 shall be treated as being significantly altered for purposes  
24 of subsection (a) if the alteration is subject to congres-  
25 sional approval under section 3307.

1 “(f) EFFECTIVE DATE.—The requirements of sub-  
 2 sections (a) and (b) shall take effect one year after the  
 3 date of enactment of this subsection.”.

4 (b) CONFORMING AMENDMENT.—The analysis for  
 5 chapter 33 of title 40, United States Code, is amended  
 6 by striking the items relating to sections 3313, 3314, and  
 7 3315 and inserting the following:

“3313. Use of energy efficient lighting fixtures and bulbs.

“3314. Delegation.

“3315. Report to Congress.

“3316. Certain authority not affected.”.

## 8 **PART 3—RESIDENTIAL BUILDING EFFICIENCY**

### 9 **SEC. 9031. ENCOURAGING STRONGER BUILDING CODES.**

10 (a) IN GENERAL.—Section 304 of the Energy Con-  
 11 servation and Production Act (42 U.S.C. 6833) is amend-  
 12 ed to read as follows:

#### 13 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI- 14 CIENCY CODES.**

15 “(a) UPDATING NATIONAL MODEL BUILDING EN-  
 16 ERGY CODES.—(1) The Secretary shall support updating  
 17 the national model building energy codes and standards  
 18 at least every three years to achieve overall energy savings,  
 19 compared to the 2006 IECC for residential buildings and  
 20 ASHRAE Standard 90.1 2004 for commercial buildings,  
 21 of at least—

22 “(A) 30 percent by 2010;

23 “(B) 50 percent by 2020; and

1           “(C) targets to be set by the Secretary in inter-  
2           mediate and subsequent years, at the maximum level  
3           of energy efficiency that is technologically feasible  
4           and life-cycle cost effective.

5           “(2)(A) Whenever the provisions of the IECC or  
6 ASHRAE Standard 90.1 regarding building energy use  
7 are revised, the Secretary shall, not later than 6 months  
8 after the date of such revision, determine—

9           “(i) whether such revision will improve energy  
10          efficiency in buildings; and

11          “(ii) whether such revision will meet the targets  
12          under paragraph (1).

13          “(B) If the Secretary makes a determination under  
14 subparagraph (A)(ii) that a code or standard does not  
15 meet the targets under paragraph (1), or if a national  
16 model code or standard is not updated for more than three  
17 years, then the Secretary shall within 12 months propose  
18 a modified code or standard that meets such targets. The  
19 modified code or standard shall serve as the baseline for  
20 the next determination under subparagraph (A)(i).

21          “(C) The Secretary shall provide the opportunity for  
22 public comment on targets, determinations, and modified  
23 codes and standards under this subsection, and shall pub-  
24 lish notice of targets, determinations, and modified codes

1 and standards under this subsection in the Federal Reg-  
2 ister.

3       “(b) STATE CERTIFICATION OF BUILDING ENERGY  
4 CODE UPDATES.—(1) Not later than 2 years after the  
5 date of enactment of the Energy Efficiency Improvement  
6 Act of 2007, each State shall certify to the Secretary that  
7 it has reviewed and updated the provisions of its residen-  
8 tial and commercial building codes regarding energy effi-  
9 ciency. Such certification shall include a demonstration  
10 that such State’s code provisions meet or exceed the 2006  
11 IECC for residential buildings and the ASHRAE Stand-  
12 ard 90.1–2004 for commercial buildings, or achieve equiv-  
13 alent or greater energy savings.

14       “(2)(A) If the Secretary makes an affirmative deter-  
15 mination under subsection (a)(2)(A)(i) or proposes a  
16 modified code or standard under subsection (a)(2)(B),  
17 each State shall within 2 years certify that it has reviewed  
18 and updated the provisions of its building code regarding  
19 energy efficiency. Such certification shall include a dem-  
20 onstration that such State’s code provisions meet or ex-  
21 ceed the revised code or standard, or achieve equivalent  
22 or greater energy savings.

23       “(B) If the Secretary fails to make a determination  
24 under subsection (a)(2)(A)(i) by the date specified in sub-  
25 section (a)(2), or makes a negative determination, each

1 State shall within 2 years after the specified date or the  
2 date of the determination, certify that it has reviewed the  
3 revised code or standard, and updated the provisions of  
4 its building code regarding energy efficiency to meet or  
5 exceed any provisions found to improve energy efficiency  
6 in buildings, or to achieve equivalent or greater energy  
7 savings in other ways.

8       “(c) STATE CERTIFICATION OF COMPLIANCE WITH  
9 BUILDING CODES.—(1) Each State shall, not later than  
10 3 years after a certification under subsection (b), certify  
11 that it has achieved compliance with the certified building  
12 energy code. Such certification shall include documenta-  
13 tion of the rate of compliance based on independent in-  
14 spections of a random sample of the new and renovated  
15 buildings covered by the code in the preceding year.

16       “(2) A State shall be considered to achieve compli-  
17 ance under paragraph (1) if—

18               “(A) at least 90 percent of new and renovated  
19 buildings covered by the code in the preceding year  
20 substantially meet all the requirements of the code;  
21 or

22               “(B) the estimated excess energy use of new  
23 and renovated buildings that did not meet the code  
24 in the preceding year, compared to a baseline of  
25 comparable buildings that meet the code, is not more

1 than 10 percent of the estimated energy use of all  
2 new and renovated buildings covered by the code in  
3 the preceding year.

4 “(d) FAILURE TO MEET DEADLINES.—(1) The Sec-  
5 retary shall permit extensions of the deadlines for the cer-  
6 tification requirements under subsections (b) and (c) of  
7 this section for up to 1 year if a State can demonstrate  
8 that it has made a good faith effort to comply with such  
9 requirements and that it has made significant progress in  
10 doing so.

11 “(2) Any State for which the Secretary has not ac-  
12 cepted a certification by a deadline under subsection (b)  
13 or (c) of this section, with any extension granted under  
14 paragraph (1), is out of compliance with this section.

15 “(3) In any State that is out of compliance with this  
16 section, a local government may be in compliance with this  
17 section by meeting the certification requirements under  
18 subsections (b) and (c) of this section.

19 “(e) TECHNICAL ASSISTANCE.—(1) The Secretary  
20 shall provide technical assistance, including building en-  
21 ergy analysis and design tools, building demonstrations,  
22 and design assistance and training to enable the national  
23 model building energy codes and standards to meet the  
24 targets in subsection (a)(1).

1       “(2) The Secretary shall provide technical assistance  
2 to States to implement the requirements of this section,  
3 including procedures for States to demonstrate that their  
4 code provisions achieve equivalent or greater energy sav-  
5 ings than the national model codes and standards, and to  
6 improve and implement State residential and commercial  
7 building energy efficiency codes or to otherwise promote  
8 the design and construction of energy efficient buildings.

9       “(f) AVAILABILITY OF INCENTIVE FUNDING.—(1)  
10 The Secretary shall provide incentive funding to States to  
11 implement the requirements of this section, and to im-  
12 prove and implement State residential and commercial  
13 building energy efficiency codes, including increasing and  
14 verifying compliance with such codes. In determining  
15 whether, and in what amount, to provide incentive funding  
16 under this subsection, the Secretary shall consider the ac-  
17 tions proposed by the State to implement the requirements  
18 of this section, to improve and implement residential and  
19 commercial building energy efficiency codes, and to pro-  
20 mote building energy efficiency through the use of such  
21 codes.

22       “(2) Additional funding shall be provided under this  
23 subsection for implementation of a plan to achieve and  
24 document at least a 90 percent rate of compliance with

1 residential and commercial building energy efficiency  
2 codes, based on energy performance—

3 “(A) to a State that has adopted and is imple-  
4 menting, on a Statewide basis—

5 “(i) a residential building energy efficiency  
6 code that meets or exceeds the requirements of  
7 the 2006 IECC, or any succeeding version of  
8 that code that has received an affirmative de-  
9 termination from the Secretary under sub-  
10 section (a)(2)(A)(i); and

11 “(ii) a commercial building energy effi-  
12 ciency code that meets or exceeds the require-  
13 ments of the ASHRAE Standard 90.1-2004, or  
14 any succeeding version of that standard that  
15 has received an affirmative determination from  
16 the Secretary under subsection (a)(2)(A)(i); or

17 “(B) in a State in which there is no Statewide  
18 energy code either for residential buildings or for  
19 commercial buildings, or where State codes fail to  
20 comply with subparagraph (A), to a local govern-  
21 ment that has adopted and is implementing residen-  
22 tial and commercial building energy efficiency codes,  
23 as described in subparagraph (A).

24 “(3) Of the amounts made available under this sub-  
25 section, the Secretary may use amounts required, not ex-

1 ceeding \$500,000 for each State, to train State and local  
2 officials to implement codes described in paragraph (2).

3 “(4)(A) There are authorized to be appropriated to  
4 carry out this subsection—

5 “(i) \$25,000,000 for each of fiscal years 2008  
6 through 2012; and

7 “(ii) such sums as are necessary for fiscal year  
8 2013 and each fiscal year thereafter.

9 “(B) Funding provided to States under paragraph  
10 (2) for each fiscal year shall not exceed one-half of the  
11 excess of funding under this subsection over \$5,000,000  
12 for the fiscal year.”.

13 (b) DEFINITION.—Section 303 of the Energy Con-  
14 servation and Production Act (42 U.S.C. 6832) is amend-  
15 ed by adding at the end the following new paragraph:

16 “(17) The term ‘IECC’ means the International  
17 Energy Conservation Code.”.

18 **SEC. 9032. ENERGY CODE IMPROVEMENTS APPLICABLE TO**  
19 **MANUFACTURED HOUSING.**

20 (a) IN GENERAL.—Not later than 4 years after the  
21 date of enactment of this Act, the Secretary of Energy  
22 shall by regulation establish standards for energy effi-  
23 ciency in manufactured housing.

1 (b) CERTAIN REQUIREMENTS.—The regulations  
2 under subsection (a) shall be in accordance with the fol-  
3 lowing:

4 (1) The energy conservation standards estab-  
5 lished under this subsection shall be based on the  
6 most recent version of the International Energy  
7 Conservation Code (including supplements) except  
8 where the Secretary finds that such code is not cost-  
9 effective, or a more stringent standard would be  
10 more cost-effective, based on total life-cycle con-  
11 struction and operating costs.

12 (2) The energy conservation standards estab-  
13 lished under this subsection may—

14 (A) take into consideration the design and  
15 factory construction techniques of manufac-  
16 tured homes;

17 (B) be based on the climate zones estab-  
18 lished by the Department of Housing and  
19 Urban Development rather than those under  
20 the International Energy Conservation Code;  
21 and

22 (C) provide for alternative practices that  
23 result in net estimated energy consumption  
24 equal to or less than the specified standards.

1           (3) The energy conservation standards estab-  
2           lished under this subsection shall be updated within  
3           one year after the date of enactment of this Act and  
4           within one year after any revision to the Inter-  
5           national Energy Conservation Code.

6           (c) ENFORCEMENT.—Any manufacturer of manufac-  
7           tured housing that violates a provision of the regulations  
8           under subsection (a) is liable to the United States for a  
9           civil penalty in an amount not exceeding 1 percent of the  
10          manufacturer’s retail list price of the manufactured hous-  
11          ing.

12          **SEC. 9033. BASELINE BUILDING DESIGNS.**

13          Section 327(f)(3)(D) of the Energy Policy and Con-  
14          servation Act (42 U.S.C. 6297(f)(3)(D)) is amended to  
15          read as follows:

16                 “(D) If the code uses one or more baseline  
17                 building designs against which all submitted building  
18                 designs are to be evaluated and such baseline build-  
19                 ing designs contain a covered product subject to an  
20                 energy conservation standard established in or pre-  
21                 scribed under section 325, the baseline building de-  
22                 signs are based on the efficiency level for such cov-  
23                 ered product which—

24                         “(i) meets but does not exceed such stand-  
25                         ard;

1           “(ii) is the efficiency level required by a  
2           regulation of that State for which the Secretary  
3           has issued a rule granting a waiver under sub-  
4           section (d) of this section; or

5           “(iii) is a level that, when evaluated in the  
6           baseline building design, the State has found to  
7           be feasible and cost-effective.”.

8 **SEC. 9034. REAUTHORIZATION OF WEATHERIZATION AS-**  
9 **SISTANCE PROGRAM.**

10       (a) AMENDMENT.—Section 422 of the Energy Con-  
11 servation and Production Act (42 U.S.C. 6872) is amend-  
12 ed by striking “\$500,000,000 for fiscal year 2006,  
13 \$600,000,000 for fiscal year 2007, and \$700,000,000 for  
14 fiscal year 2008” and inserting “\$600,000,000 for fiscal  
15 year 2007, and \$750,000,000 for each of fiscal years  
16 2008, 2009, 2010, 2011, and 2012. From those sums, the  
17 Secretary is authorized to initiate an Alternative Delivery  
18 System Pilot Project to examine options for decreasing en-  
19 ergy consumption associated with heating and cooling  
20 while increasing household participation by focusing on  
21 key energy saving components. Alternative Delivery Sys-  
22 tem Pilot Projects should be undertaken in both hot and  
23 cold urban areas”.

24       (b) SUSTAINABLE ENERGY RESOURCES FOR CON-  
25 SUMERS GRANTS.—(1) The Secretary of Energy may

1 make funding available to local Weatherization agencies  
2 from amounts authorized under the amendment made by  
3 subsection (a) to expand the weatherization assistance  
4 program for residential buildings to include materials,  
5 benefits, and renewable and domestic energy technologies  
6 not currently covered by the program, provided that the  
7 State Weatherization grantee has certified that the appli-  
8 cant has the capacity to carry out the proposed activities  
9 and that the grantee will include the project in its finan-  
10 cial oversight of the Weatherization Assistance program.

11 (2) In selecting the grants, the program shall give  
12 priority to—

13 (A) the expected effectiveness and benefits of  
14 the proposed project to low- and moderate income  
15 energy consumers;

16 (B) the potential for replication of successful  
17 results;

18 (C) the impact on the health and safety and en-  
19 ergy costs of those served; and

20 (D) the extent of partnerships with other public  
21 and private entities that contribute to the resources  
22 and implementation of the program, including finan-  
23 cial partnerships.

24 (3) Funding for such projects may equal up to two  
25 percent of funding in any fiscal year, provided that no

1 funding is utilized for Sustainable Energy Resources for  
2 Consumers grants in any fiscal year in which Weatheriza-  
3 tion appropriations are less than \$275,000,000.

4 **PART 4—COMMERCIAL AND FEDERAL BUILDING**  
5 **EFFICIENCY**

6 **SEC. 9041. DEFINITIONS.**

7 In this part:

8 (1) ADMINISTRATOR.—The term “Adminis-  
9 trator” means the Administrator of General Serv-  
10 ices.

11 (2) ADVISORY COMMITTEE.—The term “Advi-  
12 sory Committee” means the Green Building Advi-  
13 sory Committee established under section  
14 9042(e)(2).

15 (3) COMMERCIAL DIRECTOR.—The term Com-  
16 mercial Director means the individual appointed to  
17 the position established under section 9043(a).

18 (4) CONSORTIUM.—The term “Consortium”  
19 means the High-Performance Green Building Part-  
20 nership Consortium created in response to section  
21 9042(e)(1) to represent the private sector in a pub-  
22 lic-private partnership to promote high-performance  
23 green buildings and zero-net-energy commercial  
24 buildings.

1           (5) FEDERAL DIRECTOR.—The term “Federal  
2 Director” means the individual appointed to the po-  
3 sition established under section 9042(a).

4           (6) FEDERAL FACILITY.—The term “Federal  
5 facility” means any building that is constructed, ren-  
6 ovated, leased, or purchased in part or in whole for  
7 use by the Federal Government.

8           (7) HIGH-PERFORMANCE GREEN BUILDING.—  
9 The term “high-performance green building” means  
10 a building that, during its life-cycle, as compared  
11 with similar buildings (as measured by Commercial  
12 Buildings Energy Consumption Survey or Residen-  
13 tial Energy Consumption Survey data from the En-  
14 ergy Information Agency)—

15                   (A) reduces energy, water, and material re-  
16 source use;

17                   (B) improves indoor environmental quality,  
18 including reducing indoor pollution, improving  
19 thermal comfort, and improving lighting and  
20 acoustic environments that affect occupant  
21 health and productivity;

22                   (C) reduces negative impacts on the envi-  
23 ronment throughout the life-cycle of the build-  
24 ing, including air and water pollution and waste  
25 generation;

1 (D) increases the use of environmentally  
2 preferable products, including biobased, recycled  
3 content, and nontoxic products with lower life-  
4 cycle impacts;

5 (E) increases reuse and recycling opportu-  
6 nities;

7 (F) integrates systems in the building;

8 (G) reduces the environmental and energy  
9 impacts of transportation through building loca-  
10 tion and site design that support a full range  
11 of transportation choices for users of the build-  
12 ing; and

13 (H) considers indoor and outdoor effects of  
14 the building on human health and the environ-  
15 ment, including—

16 (i) improvements in worker produc-  
17 tivity;

18 (ii) the life-cycle impacts of building  
19 materials and operations; and

20 (iii) other factors that the Federal Di-  
21 rector or the Commercial Director consider  
22 to be appropriate.

23 (8) LIFE-CYCLE.—The term “life-cycle”, with  
24 respect to a high-performance green building, means  
25 all stages of the useful life of the building (including

1 components, equipment, systems, and controls of the  
2 building) beginning at conception of a high-perform-  
3 ance green building project and continuing through  
4 site selection, design, construction, landscaping,  
5 commissioning, operation, maintenance, renovation,  
6 deconstruction or demolition, removal, and recycling  
7 of the high-performance green building.

8 (9) LIFE-CYCLE ASSESSMENT.—The term “life-  
9 cycle assessment” means a comprehensive system  
10 approach for measuring the environmental perform-  
11 ance of a product or service over the life of the prod-  
12 uct or service, beginning at raw materials acquisition  
13 and continuing through manufacturing, transpor-  
14 tation, installation, use, reuse, and end-of-life waste  
15 management.

16 (10) LIFE-CYCLE COSTING.—The term “life-  
17 cycle costing”, with respect to a high-performance  
18 green building, means a technique of economic eval-  
19 uation that—

20 (A) sums, over a given study period, the  
21 costs of initial investment (less resale value), re-  
22 placements, operations (including energy use),  
23 and maintenance and repair of an investment  
24 decision; and

25 (B) is expressed—

1 (i) in present value terms, in the case  
2 of a study period equivalent to the longest  
3 useful life of the building, determined by  
4 taking into consideration the typical life of  
5 such a building in the area in which the  
6 building is to be located; or

7 (ii) in annual value terms, in the case  
8 of any other study period.

9 (11) OFFICE OF COMMERCIAL HIGH-PERFORM-  
10 ANCE GREEN BUILDINGS.—The term “Office of  
11 Commercial High-Performance Green Buildings” re-  
12 fers to the office established under section 9043(a).

13 (12) OFFICE OF FEDERAL HIGH-PERFORMANCE  
14 GREEN BUILDINGS.—The term “Office of Federal  
15 High-Performance Green Buildings” refers to the  
16 Office established under section 9042(a).

17 (13) PRACTICES.—The term “practices” means  
18 design, financing, permitting, construction, commis-  
19 sioning, operation and maintenance, and other prac-  
20 tices that contribute to achieving zero-net-energy  
21 buildings or facilities.

22 (14) SECRETARY.—The term “Secretary”  
23 means the Secretary of Energy.

24 (15) ZERO-NET-ENERGY COMMERCIAL BUILD-  
25 ING.—The term “zero-net-energy commercial build-

1 ing” means a commercial building that is designed,  
2 constructed, and operated to—

3 (A) require a greatly reduced quantity of  
4 energy to operate;

5 (B) meet the balance of energy needs from  
6 sources of energy that do not produce green-  
7 house gases;

8 (C) therefore result in no net emissions of  
9 greenhouse gases; and

10 (D) be economically viable.

11 **SEC. 9042. HIGH-PERFORMANCE GREEN FEDERAL BUILD-**  
12 **INGS.**

13 (a) ESTABLISHMENT OF OFFICE.—Not later than 60  
14 days after the date of enactment of this Act, the Adminis-  
15 trator shall establish within the General Services Adminis-  
16 tration an Office of Federal High-Performance Green  
17 Buildings, and appoint an individual to serve as Federal  
18 Director in, a position in the career-reserved Senior Exec-  
19 utive service, to—

20 (1) establish and manage the Office of Com-  
21 mercial High-Performance Green Buildings; and

22 (2) carry out other duties as required under  
23 this part.

24 (b) COMPENSATION.—The compensation of the Fed-  
25 eral Director shall not exceed the maximum rate of basic

1 pay for the Senior Executive Service under section 5382  
2 of title 5, United States Code, including any applicable  
3 locality-based comparability payment that may be author-  
4 ized under section 5304(h)(2)(C) of that title.

5 (c) DUTIES.—The Federal Director shall—

6 (1) coordinate the activities of the Office of  
7 Federal High-Performance Green Buildings with the  
8 activities of the Office of Commercial High-Perform-  
9 ance Green Buildings;

10 (2) ensure full coordination of high-performance  
11 green building information and activities within the  
12 General Services Administration and all relevant  
13 agencies, including, at a minimum—

14 (A) the Environmental Protection Agency;

15 (B) the Office of the Federal Environ-  
16 mental Executive;

17 (C) the Office of Federal Procurement Pol-  
18 icy;

19 (D) the Department of Energy;

20 (E) the Department of Health and Human  
21 Services; and

22 (F) the Department of Defense;

23 (3) establish a senior-level Federal Green Build-  
24 ing Advisory Committee, which shall provide advice

1 and recommendations in accordance with subsection  
2 (d);

3 (4) identify and biennially reassess improved or  
4 higher rating standards recommended by the Advi-  
5 sory Committee;

6 (5) ensure full coordination of research and de-  
7 velopment information relating to Federal high-per-  
8 formance green building initiatives;

9 (6) identify and develop Federal high-perform-  
10 ance green building standards that could be used for  
11 all types of Federal facilities;

12 (7) establish green practices that can be used  
13 throughout the life of a Federal facility; and

14 (8) review and analyze current Federal budget  
15 practices and life-cycle costing issues, and make rec-  
16 ommendations to Congress, in accordance with sub-  
17 section (d).

18 (d) **ADDITIONAL DUTIES.**—The Federal Director, in  
19 coordination with the Commercial Director and the Advi-  
20 sory Committee, shall—

21 (1) identify, review, and analyze current budget  
22 and contracting practices that affect achievement of  
23 high-performance green buildings, including the  
24 identification of barriers to high-performance green  
25 building life-cycle costing and budgetary issues;

1           (2) develop guidance and conduct training ses-  
2           sions with budget specialists and contracting per-  
3           sonnel from Federal agencies and budget examiners  
4           to apply life-cycle cost criteria to actual projects;

5           (3) identify tools to aid life-cycle cost decision-  
6           making; and

7           (4) explore the feasibility of incorporating the  
8           benefits of high-performance green buildings, such  
9           as security benefits, into a cost-budget analysis to  
10          aid in life-cycle costing for budget and decision-  
11          making processes.

12          (e) INCENTIVES.—As soon as practicable after the  
13          date of enactment of this Act, the Federal Director shall  
14          identify incentives to encourage the use of high-perform-  
15          ance green buildings and related technology in the oper-  
16          ations of the Federal Government, including through—

17                 (1) the provision of recognition awards; and

18                 (2) the maximum feasible retention of financial  
19          savings in the annual budgets of Federal agencies  
20          for use in reinvesting in future high-performance  
21          green building initiatives.

22          (f) REPORT.—Not later than 2 years after the date  
23          of enactment of this Act, and biennially thereafter, the  
24          Federal Director shall submit to Congress a report that—

1           (1) describes the status of the Federal high-per-  
2           formance green building initiatives in effect as of the  
3           date of the report, including—

4                   (A) the extent to which the programs are  
5           being carried out in accordance with this part;  
6           and

7                   (B) the status of funding requests and ap-  
8           propriations for those programs;

9           (2) identifies within the planning, budgeting,  
10          and construction process all types of Federal facility  
11          procedures that inhibit new and existing Federal fa-  
12          cilities from becoming high-performance green build-  
13          ings;

14          (3) identifies inconsistencies, as reported to the  
15          Advisory Committee, in Federal law with respect to  
16          product acquisition guidelines and high-performance  
17          product guidelines;

18          (4) recommends language for uniform stand-  
19          ards for use by Federal agencies in environmentally  
20          responsible acquisition;

21          (5) in coordination with the Office of Manage-  
22          ment and Budget, reviews the budget process for  
23          capital programs with respect to alternatives for—

1 (A) restructuring of budgets to require the  
2 use of complete energy and environmental cost  
3 accounting;

4 (B) using operations expenditures in budg-  
5 et-related decisions while simultaneously incor-  
6 porating productivity and health measures (as  
7 those measures can be quantified by the Office  
8 of Federal High-Performance Green Buildings,  
9 with the assistance of universities and national  
10 laboratories);

11 (C) permitting Federal agencies to retain  
12 all identified savings accrued as a result of the  
13 use of life-cycle costing for future high-perform-  
14 ance green building initiatives; and

15 (D) identifying short-term and long-term  
16 cost savings that accrue from high-performance  
17 green buildings, including those relating to  
18 health and productivity;

19 (6) identifies green, self-sustaining technologies  
20 to address the operational needs of Federal facilities  
21 in times of national security emergencies, natural  
22 disasters, or other dire emergencies;

23 (7) summarizes and highlights development, at  
24 the State and local level, of high-performance green  
25 building initiatives, including executive orders, poli-

1 cies, or laws adopted promoting high-performance  
2 green building (including the status of implementa-  
3 tion of those initiatives); and

4 (8) includes, for the 2-year period covered by  
5 the report, recommendations to address each of the  
6 matters, and a plan for implementation of each rec-  
7 ommendation, described in paragraphs (1) through  
8 (7).

9 (g) IMPLEMENTATION.—The Office of Federal High-  
10 Performance Green Buildings shall carry out each plan  
11 for implementation of recommendations under subsection  
12 (f)(8).

13 **SEC. 9043. COMMERCIAL HIGH-PERFORMANCE GREEN**  
14 **BUILDINGS.**

15 (a) ESTABLISHMENT OF OFFICE.—Not later than 60  
16 days after the date of enactment of this Act, the Secretary  
17 shall establish within the Department of Energy, Office  
18 of Energy Efficiency and Renewable Energy, an Office of  
19 Commercial High-Performance Green Buildings, and ap-  
20 point an individual to serve as Commercial Director in,  
21 a position in the career-reserved Senior Executive service,  
22 to—

23 (1) establish and manage the Office of Com-  
24 mercial High-Performance Green Buildings; and

1           (2) carry out other duties as required under  
2           this part.

3           (b) COMPENSATION.—The compensation of the Com-  
4           mercial Director shall not exceed the maximum rate of  
5           basic pay for the Senior Executive Service under section  
6           5382 of title 5, United States Code, including any applica-  
7           ble locality-based comparability payment that may be au-  
8           thorized under section 5304(h)(2)(C) of that title.

9           (c) DUTIES.—The Commercial Director shall, with  
10          respect to development of high-performance green build-  
11          ings and zero-energy commercial buildings nationwide—

12                 (1) coordinate the activities of the Office of  
13                 Commercial High-Performance Green Buildings with  
14                 the activities of the Office of Federal High-Perform-  
15                 ance Green Buildings;

16                 (2) develop the legal predicates and agreements  
17                 for, negotiate, and establish one or more public-pri-  
18                 vate partnerships with the Consortium, members of  
19                 the Consortium, and other capable parties meeting  
20                 the qualifications of the Consortium, to further such  
21                 development;

22                 (3) represent the public and the Department of  
23                 Energy in negotiating and performing in accord with  
24                 such public-private partnerships;

1           (4) use appropriated funds in an effective man-  
2           ner to encourage the maximum investment of private  
3           funds to achieve such development; and

4           (5) establish a national high-performance green  
5           building clearinghouse in accordance with section  
6           9045(1), which shall provide high-performance green  
7           building information through—

8                   (A) outreach;

9                   (B) education; and

10                   (C) the provision of technical assistance.

11           (d) REPORTING.—The Commercial Director shall re-  
12           port directly to the Assistant Secretary for Energy Effi-  
13           ciency and Renewable Energy, or to other senior officials  
14           in a way that facilitates the integrated program of this  
15           part for both energy efficiency and renewable energy and  
16           both technology development and technology deployment.

17           (e) COORDINATION.—The Commercial Director shall  
18           ensure full coordination of high-performance green build-  
19           ing information and activities, including activities under  
20           this part, within the Federal Government by working with  
21           the General Services Administration and all relevant agen-  
22           cies, including, at a minimum—

23                   (1) the Environmental Protection Agency;

24                   (2) the Office of the Federal Environmental  
25           Executive;

1 (3) the Office of Federal Procurement Policy;

2 (4) the Department of Energy, particularly the  
3 Federal Energy Management Program;

4 (5) the Department of Health and Human  
5 Services;

6 (6) the Department of Housing and Urban De-  
7 velopment;

8 (7) the Department of Defense; and

9 (8) such nonprofit high-performance green  
10 building rating and analysis entities as the Commer-  
11 cial Director determines can offer support, expertise,  
12 and review services.

13 (f) HIGH-PERFORMANCE GREEN BUILDING PART-  
14 NERSHIP CONSORTIUM.—

15 (1) RECOGNITION.—Not later than 90 days  
16 after the date of enactment of this Act, the Commer-  
17 cial Director shall formally recognize one or more  
18 groups that qualify as a high-performance green  
19 building partnership consortium.

20 (2) REPRESENTATION TO QUALIFY.—To qualify  
21 under this section, any consortium shall include rep-  
22 resentation from—

23 (A) the design professions, including na-  
24 tional associations of architects and of profes-  
25 sional engineers;

1 (B) the development, construction, finan-  
2 cial, and real estate industries;

3 (C) building owners and operators from  
4 the public and private sectors;

5 (D) academic and research organizations,  
6 including at least one national laboratory with  
7 extensive commercial building energy expertise;

8 (E) building code agencies and organiza-  
9 tions, including a model energy code-setting or-  
10 ganization;

11 (F) independent high-performance green  
12 building associations or councils;

13 (G) experts in indoor air quality and envi-  
14 ronmental factors;

15 (H) experts in intelligent buildings and in-  
16 tegrated building information systems;

17 (I) utility energy efficiency programs; and

18 (J) nongovernmental energy efficiency or-  
19 ganizations.

20 (3) FUNDING.—The Secretary may make pay-  
21 ments to the Consortium pursuant to the terms of  
22 a public-private partnership for such activities of the  
23 Consortium undertaken under such a partnership as  
24 described in this part directly to the Consortium or  
25 through one or more of its members.

1 (g) REPORT.—Not later than 2 years after the date  
2 of enactment of this Act, and biennially thereafter, the  
3 Commercial Director, in consultation with the Consor-  
4 tium, shall submit to Congress a report that—

5 (1) describes the status of the high-performance  
6 green building initiatives under this part and other  
7 Federal programs affecting commercial high-per-  
8 formance green buildings in effect as of the date of  
9 the report, including—

10 (A) the extent to which the programs are  
11 being carried out in accordance with this part;  
12 and

13 (B) the status of funding requests and ap-  
14 propriations for those programs; and

15 (2) summarizes and highlights development, at  
16 the State and local level, of high-performance green  
17 building initiatives, including executive orders, poli-  
18 cies, or laws adopted promoting high-performance  
19 green building (including the status of implementa-  
20 tion of those initiatives).

21 **SEC. 9044. ZERO-ENERGY COMMERCIAL BUILDINGS INITIA-**  
22 **TIVE.**

23 (a) GOAL.—The Commercial Director, in partnership  
24 with the Consortium, shall periodically study and refine  
25 a national goal to reduce commercial building energy use

1 and achieve zero-net-energy commercial buildings. Unless  
2 the Commercial Director concludes that such targets are  
3 unachievable or unrealistic, the goal shall include objec-  
4 tives that—

5           (1) all new commercial buildings constructed  
6           after the beginning of 2025 are zero-net-energy com-  
7           mercial buildings;

8           (2) by 2035, 50 percent of the then existing  
9           stock of commercial buildings that were constructed  
10          before 2025 are zero-net-energy commercial build-  
11          ings; and

12          (3) by 2050, all commercial buildings are zero-  
13          net-energy commercial buildings.

14          (b) STRATEGY.—The Commercial Director, in part-  
15          nership with the Consortium, shall develop a market  
16          transformation strategy intended to achieve the adopted  
17          goal by significantly accelerating the development and  
18          widespread deployment of energy efficiency technologies,  
19          practices, and policies in both new and existing commer-  
20          cial buildings, and by leveraging State, utility, and private  
21          sector commercial building energy efficiency programs.

22          (c) INITIATIVE.—The Commercial Director, in part-  
23          nership with the Consortium, shall implement an initiative  
24          to carry out the strategy that may include—

1           (1) support for industry efforts to develop ad-  
2           vanced materials, equipment, controls, practices, and  
3           integrated building systems aimed at achieving zero-  
4           net-energy commercial buildings and monitoring and  
5           benchmarking commercial building energy use;

6           (2) training, education, and awareness pro-  
7           grams, including—

8                   (A) programs in cooperation with industry  
9                   and professional associations and educational  
10                  institutions to provide education on achieving  
11                  sustainable and energy-efficient performance  
12                  through proper system and structure design,  
13                  construction, and operation to—

14                           (i) architects;

15                           (ii) mechanical, electrical, and plumb-  
16                          ing engineers;

17                           (iii) contractors; and

18                           (iv) construction managers and facil-  
19                          ity managers;

20                   (B) programs to incorporate energy effi-  
21                   ciency and sustainability elements into architec-  
22                   ture, engineering, and vocational training and  
23                   certification curricula, including professional  
24                   certification and continuing education pro-  
25                   grams; and

1 (C) regional and national public education  
2 campaigns to educate real estate, finance, and  
3 other commercial buildings professionals and  
4 the general public about the opportunities for  
5 energy and cost savings and associated environ-  
6 mental and health benefits associated with  
7 high-performance green buildings;

8 (3) pilot projects to demonstrate and document  
9 the performance of scalable and replicable tech-  
10 nologies, practices, and policies to achieve high-per-  
11 formance green buildings and zero-net-energy com-  
12 mercial buildings, including—

13 (A) pilot projects representing each market  
14 segment or building type in each climate region  
15 that include current best practice in integrated  
16 design, technology and systems, construction,  
17 commissioning, operation, and building infor-  
18 mation management;

19 (B) pilot projects, in cooperation with  
20 State and local governments, in public build-  
21 ings; and

22 (C) pilot projects, in cooperation with pub-  
23 lic school districts and colleges and universities,  
24 to—

1 (i) demonstrate such technologies and  
2 practices in new and existing facilities;

3 (ii) involve students and faculty mem-  
4 bers in integrating energy efficiency and  
5 high-performance green building concepts  
6 and measures within the educational cur-  
7 rriculum; and

8 (iii) use education facilities as show-  
9 cases to communicate these concepts to the  
10 community;

11 (4) technical assistance and funding of pilot  
12 projects for the development and use of new building  
13 energy design standards, model designs, model en-  
14 ergy codes, and incentives and other policies, to be  
15 provided to designers, builders, developers, commer-  
16 cial building owners, and utility and government en-  
17 ergy efficiency programs, including—

18 (A) support for code and standards organi-  
19 zations to develop aggressive model energy  
20 codes, beyond-code guidelines, and code compli-  
21 ance programs for new and existing buildings;

22 (B) assistance to utilities, builders, and  
23 State and local officials in developing, imple-  
24 menting, and evaluating pilot programs to  
25 achieve building design and actual energy per-

1 formance that meet and exceed performance  
2 levels in the model energy codes; and

3 (C) support for development and dissemi-  
4 nation of model programs and policies that pro-  
5 vide incentives for high-performance green  
6 buildings, such as accelerated zoning and con-  
7 struction permitting and inspections, density  
8 bonuses, and State and local tax incentives;

9 (5) technical assistance and funding of pilot  
10 projects for innovative market-based initiatives to  
11 advance energy-efficient technologies and practices  
12 in new and existing commercial buildings, provided  
13 to State agencies, utilities, and other entities, includ-  
14 ing—

15 (A) design assistance and incentives for in-  
16 corporating sustainability and energy efficiency  
17 beginning with the first stages of building de-  
18 sign and continuing through start-up commis-  
19 sioning and long-term operation;

20 (B) performance-based design and con-  
21 struction fees for high-performance green con-  
22 struction and renovation;

23 (C) equipment leasing and financing strat-  
24 egies for energy efficiency upgrades of new and  
25 replacement commercial building equipment;

1 (D) trade-in programs for early retirement  
2 of low-efficiency commercial building equipment  
3 and system components, such as motors, air  
4 conditioners, boilers, lighting, and windows;

5 (E) improved methods of energy perform-  
6 ance contracting to reduce transaction costs  
7 and encourage the use of third-party funding  
8 and expertise for energy-efficient retrofitting of  
9 existing commercial buildings;

10 (F) improved model protocols for commer-  
11 cial building energy audits, energy performance  
12 measurement and verification, continuous com-  
13 missioning, and ongoing performance moni-  
14 toring and diagnostics; and

15 (G) strategies to reduce barriers to energy  
16 efficiency investment by addressing split incen-  
17 tives between commercial building owners and  
18 tenants;

19 (6) development, dissemination, technical assist-  
20 ance, and pilot project activities to improve the prac-  
21 tice of monitoring, benchmarking, and disclosure of  
22 actual commercial building energy performance and  
23 operating costs, including—

24 (A) improved methods of measuring and  
25 compiling energy performance data on a statis-

1 tically significant share of commercial new con-  
2 struction, renovation, and energy retrofit  
3 projects;

4 (B) development and dissemination of en-  
5 ergy performance metrics for the commercial  
6 building stock and for important subcategories  
7 of commercial buildings;

8 (C) improved methods of providing energy  
9 performance feedback to commercial building  
10 owners, operators, and occupants, including  
11 real-time feedback and comparisons to perform-  
12 ance goals, past performance, and similar build-  
13 ings;

14 (D) voluntary programs at the national, re-  
15 gional, and sectoral levels to recognize and re-  
16 ward commercial buildings with exceptional per-  
17 formance or performance improvement;

18 (E) increased availability and use of tools  
19 for post occupancy assessment of energy effi-  
20 ciency and occupant satisfaction with commer-  
21 cial high-performance green buildings, and for  
22 measuring and documenting non-energy finan-  
23 cial and other benefits of such buildings;

24 (7) in cooperation with the Energy Information  
25 Administration and with utility, State, and private

1 sector organizations, development and application of  
2 improved methods for assessing trends in the energy  
3 performance of the commercial buildings stock, new  
4 construction, and building renovations, by building  
5 type and region, in order to track progress toward  
6 the goals adopted under subsection (a); and

7 (8) such otherwise authorized activities that the  
8 Secretary and the Commercial Director determine  
9 are necessary to the success of the initiative.

10 **SEC. 9045. PUBLIC OUTREACH.**

11 The Commercial Director, in coordination with the  
12 Consortium, shall carry out public outreach to inform indi-  
13 viduals and entities of the information and services avail-  
14 able Governmentwide by—

15 (1) establishing and maintaining a national  
16 high-performance green building clearinghouse, in-  
17 cluding on the internet, that—

18 (A) identifies existing similar efforts and  
19 coordinates activities of common interest; and

20 (B) provides information relating to high-  
21 performance green buildings, including  
22 hyperlinks to internet sites that describe the ac-  
23 tivities, information, and resources of—

24 (i) the Federal Government;

25 (ii) State and local governments;

1 (iii) the private sector (including non-  
2 governmental and nonprofit entities and  
3 organizations); and

4 (iv) international organizations;  
5 (2) identifying and recommending educational  
6 resources for implementing high-performance green  
7 building practices, including security and emergency  
8 benefits and practices;

9 (3) providing access to technical assistance on  
10 using tools and resources to make more cost-effec-  
11 tive, energy-efficient, health-protective, and environ-  
12 mentally beneficial decisions for constructing high-  
13 performance green buildings, particularly tools avail-  
14 able to conduct life-cycle costing and life-cycle as-  
15 sessment;

16 (4) providing information on application proc-  
17 esses for certifying a high-performance green build-  
18 ing, including certification and commissioning;

19 (5) providing technical information, market re-  
20 search, or other forms of assistance or advice that  
21 would be useful in planning and constructing high-  
22 performance green buildings;

23 (6) using such other methods as are determined  
24 by the Commercial Director to be appropriate;

- 1           (7) surveying existing research and studies re-
- 2 relating to high-performance green buildings;
- 3           (8) coordinating activities of common interest;
- 4           (9) developing and recommending a high-per-
- 5 formance green building practices that—
- 6           (A) identify information and research
- 7 needs, including the relationships between
- 8 health, occupant productivity, and each of—
- 9           (i) pollutant emissions from materials
- 10 and products in the building;
- 11           (ii) natural day lighting;
- 12           (iii) ventilation choices and tech-
- 13 nologies;
- 14           (iv) heating, cooling, and system con-
- 15 trol choices and technologies;
- 16           (v) moisture control and mold;
- 17           (vi) maintenance, cleaning, and pest
- 18 control activities;
- 19           (vii) acoustics; and
- 20           (viii) other issues relating to the
- 21 health, comfort, productivity, and perform-
- 22 ance of occupants of the building; and
- 23           (B) promote the development and dissemi-
- 24 nation of high-performance green building

1 measurement tools that, at a minimum, may be  
2 used—

3 (i) to monitor and assess the life-cycle  
4 performance of facilities (including dem-  
5 onstration projects) built as high-perform-  
6 ance green buildings; and

7 (ii) to perform life-cycle assessments;  
8 (10) studying and identifying potential benefits  
9 of high-performance green buildings relating to secu-  
10 rity, natural disaster, and emergency needs of the  
11 Federal Government; and

12 (11) supporting other research initiatives deter-  
13 mined by the Office of Commercial High-Perform-  
14 ance Green Buildings.

15 **SEC. 9046. FEDERAL PROCUREMENT.**

16 (a) IN GENERAL.—Not later than 2 years after the  
17 date of enactment of this Act, the Director of the Office  
18 of Federal Procurement Policy, in consultation with the  
19 Federal Director, the Commercial Director, and the Under  
20 Secretary of Defense for Acquisition, Technology, and Lo-  
21 gistics, shall promulgate revisions of the applicable acqui-  
22 sition regulations, to take effect as of the date of promul-  
23 gation of the revisions—

24 (1) to direct any Federal procurement execu-  
25 tives involved in the acquisition, construction, or

1 major renovation (including contracting for the con-  
2 struction or major renovation) of any facility—

3 (A) to employ integrated design principles;

4 (B) to improve site selection for environ-  
5 mental and community benefits;

6 (C) to optimize building and systems en-  
7 ergy performance;

8 (D) to protect and conserve water;

9 (E) to enhance indoor environmental qual-  
10 ity; and

11 (F) to reduce environmental impacts of  
12 materials and waste flows; and

13 (2) to direct Federal procurement executives in-  
14 volved in leasing buildings, to give preference to the  
15 lease of facilities that—

16 (A) are energy-efficient; and

17 (B) to the maximum extent practicable,  
18 have applied contemporary high-performance  
19 and sustainable design principles during con-  
20 struction or renovation.

21 (b) GUIDANCE.—Not later than 90 days after the  
22 date of promulgation of the revised regulations under sub-  
23 section (a), the Director of the Office of Procurement Pol-  
24 icy shall issue guidance to all Federal procurement execu-  
25 tives providing direction and instructions to renegotiate

1 the design of proposed facilities, renovations for existing  
2 facilities, and leased facilities to incorporate improvements  
3 that are consistent with this section.

4 **SEC. 9047. MANAGEMENT OF ENERGY AND WATER EFFI-**  
5 **CIENCY IN FEDERAL BUILDINGS.**

6 Section 543 of the National Energy Conservation  
7 Policy Act (42 U.S.C. 8253) is amended by adding at the  
8 end the following:

9 “(f) USE OF ENERGY AND WATER EFFICIENCY  
10 MEASURES IN FEDERAL BUILDINGS.—

11 “(1) FACILITY ENERGY MANAGERS.—

12 “(A) IN GENERAL.—Each Federal agency  
13 shall designate a manager responsible for imple-  
14 menting this subsection and reducing energy  
15 use at each building or facility that meets cri-  
16 teria under subparagraph (B).

17 “(B) COVERED FACILITIES.—The Sec-  
18 retary shall develop criteria, after consultation  
19 with affected agencies, energy efficiency advo-  
20 cates, and energy and utility service providers,  
21 that cover, at a minimum, each Federal build-  
22 ing or facility with greater than 40,000 square  
23 feet of space or greater than \$75,000 per year  
24 in energy costs, including central utility plants  
25 and distribution systems and other energy in-

1           tensive operations, and that constitute in the  
2           aggregate at least two-thirds of total Federal  
3           building and facility energy use.

4           “(2) ENERGY AND WATER EVALUATIONS AND  
5           COMMISSIONING.—

6                   “(A) EVALUATIONS.—Not later than 18  
7           months after the date of enactment of this sub-  
8           section, and every 5 years thereafter, each en-  
9           ergy manager shall complete a comprehensive  
10          energy and water evaluation for each building  
11          or facility that meets criteria under paragraph  
12          (1)(B).

13                   “(B)           RECOMMISSIONING           AND  
14          RETROCOMMISSIONING.—As part of the evalua-  
15          tion under subparagraph (A) or on the same  
16          schedule the energy manager shall recommis-  
17          sion or retrocommission each such building and  
18          facility as applicable.

19           “(3) IMPLEMENTATION OF IDENTIFIED ENERGY  
20          AND WATER EFFICIENCY MEASURES.—

21                   “(A) IN GENERAL.—Not later than 2 years  
22          after the completion of each evaluation under  
23          paragraph (1), each energy manager—

24                           “(i) shall fully implement each energy  
25                           and water-saving measure identified in the

1 evaluation conducted under paragraph (2)  
2 that is life-cycle cost-effective and has a  
3 12-year or shorter simple payback period;

4 “(ii) may implement any energy or  
5 water-saving measure that the Federal  
6 agency identified in the evaluation con-  
7 ducted under paragraph (1) that is life-  
8 cycle cost-effective and has longer than a  
9 12-year simple payback period; and

10 “(iii) may bundle individual measures  
11 of varying paybacks together into combined  
12 projects.

13 “(B) PAYBACK PERIOD.—For the purpose  
14 of subparagraph (A), the simple payback period  
15 of a measure shall be obtained by dividing—

16 “(i) the estimated initial implementa-  
17 tion cost of the measure (other than fi-  
18 nancing costs); by

19 “(ii) the annual cost savings from the  
20 measure.

21 “(C) COST SAVINGS.—For the purpose of  
22 subparagraph (B), cost savings shall include net  
23 savings in estimated—

24 “(i) energy and water costs; and

1                   “(ii) operations, maintenance, repair,  
2                   replacement, and other direct costs.

3                   “(D) EXCEPTIONS.—The Secretary may  
4                   modify or make exceptions to the calculation of  
5                   a 12-year simple payback under this paragraph  
6                   in the guidelines issued by the Secretary under  
7                   paragraph (5), if necessary and appropriate to  
8                   achieve the purposes of this Act.

9                   “(E) LIFE-CYCLE COST-EFFECTIVE.—For  
10                  the purpose of subparagraph (A), determination  
11                  of whether a measure is life-cycle cost-effective  
12                  shall use methods and procedures developed  
13                  pursuant to section 544.

14                  “(4) FOLLOW-UP ON IMPLEMENTED MEAS-  
15                  URES.—For each measure implemented under para-  
16                  graph (3), each energy manager shall ensure that—

17                         “(A) equipment, including building and  
18                         equipment controls, is fully commissioned at ac-  
19                         ceptance to be operating at design specifica-  
20                         tions;

21                         “(B) a plan for appropriate operations,  
22                         maintenance, and repair of the equipment is in  
23                         place at acceptance and is followed;

1           “(C) equipment and system performance is  
2 measured during its entire life to ensure proper  
3 operations, maintenance, and repair; and

4           “(D) energy and water savings are meas-  
5 ured and verified.

6           “(5) GUIDELINES.—

7           “(A) IN GENERAL.—The Secretary shall  
8 issue guidelines and necessary criteria that each  
9 Federal agency shall follow for implementation  
10 of—

11           “(i) paragraphs (1) and (2) not later  
12 than 180 days after the date of enactment  
13 of this subsection; and

14           “(ii) paragraphs (3) and (4) not later  
15 than 1 year after the date of enactment of  
16 this subsection.

17           “(B) RELATIONSHIP TO FUNDING  
18 SOURCE.—The guidelines issued by the Sec-  
19 retary under subparagraph (A) shall be appro-  
20 priate and uniform for measures funded with  
21 each type of funding made available under  
22 paragraph (9), but may distinguish between dif-  
23 ferent types of measures project size, and other  
24 criteria the Secretary determines are relevant.

25           “(6) WEB-BASED CERTIFICATION.—

1           “(A) IN GENERAL.—For each building or  
2 facility that meets the criteria established by  
3 the Secretary under paragraph (1), the energy  
4 manager shall use the web-based tracking sys-  
5 tem under subparagraph (B) to certify compli-  
6 ance with the requirements for—

7           “(i) energy and water evaluations and  
8 recommissioning and retrocommissioning  
9 under paragraph (2);

10           “(ii) implementation of identified en-  
11 ergy and water measures under paragraph  
12 (3); and

13           “(iii) follow-up on implemented meas-  
14 ures under paragraph (4).

15           “(B) DEPLOYMENT.—

16           “(i) IN GENERAL.—Not later than 1  
17 year after the date of enactment of this  
18 subsection, the Secretary shall develop and  
19 deploy the web-based tracking system re-  
20 quired under this paragraph in a manner  
21 that tracks, at a minimum—

22           “(I) the covered buildings and fa-  
23 cilities;

1           “(II) the status of meeting the  
2 requirements specified in subpara-  
3 graph (A);

4           “(III) the estimated cost and  
5 savings for measures required to be  
6 implemented in a building or facility;  
7 and

8           “(IV) the measured savings and  
9 persistence of savings for implemented  
10 measures.

11           “(ii) EASE OF COMPLIANCE.—The  
12 Secretary shall ensure that energy man-  
13 ager compliance with the requirements in  
14 this paragraph, to the greatest extent prac-  
15 ticable, can be accomplished with the use  
16 of streamlined procedures, and templates  
17 that minimize the time demands on Fed-  
18 eral employees.

19           “(C) AVAILABILITY.—

20           “(i) IN GENERAL.—Subject to clause  
21 (ii), the Secretary shall make the web-  
22 based tracking system required under this  
23 paragraph available to Congress, other  
24 Federal agencies, and the public through  
25 the Internet.

1           “(ii) EXEMPTIONS.—At the request of  
2           a Federal agency, the Secretary may ex-  
3           empt specific data for specific buildings  
4           from disclosure under clause (i) for na-  
5           tional security purposes.

6           “(7) BENCHMARKING OF FEDERAL FACILI-  
7           TIES.—

8           “(A) IN GENERAL.—The energy manager  
9           shall enter energy use data for each building or  
10          facility that meets the criteria established by  
11          the Secretary under paragraph (1) into a build-  
12          ing energy use benchmarking system, such as  
13          the Energy Star Portfolio Manager.

14          “(B) SYSTEM AND GUIDANCE.—Not later  
15          than 1 year after the date of enactment of this  
16          subsection, the Secretary shall—

17                 “(i) select or develop the building en-  
18                 ergy use benchmarking system required  
19                 under this paragraph for each type of  
20                 building; and

21                 “(ii) issue guidance for use of the sys-  
22                 tem.

23          “(C) PUBLIC DISCLOSURE.—Each Federal  
24          agency shall post the benchmarking information  
25          generated under this subsection, along with

1 each building's annual energy use per square  
2 foot and energy costs, on the agency's website.  
3 The agency shall update such information each  
4 year, and shall include in such reporting pre-  
5 vious years' information to allow changes in  
6 building performance to be tracked over time.

7 “(8) FEDERAL AGENCY SCORECARDS.—

8 “(A) IN GENERAL.—The Director of the  
9 Office of Management and Budget shall issue  
10 semiannual scorecards for energy management  
11 activities carried out by each Federal agency  
12 that includes—

13 “(i) summaries of the status of imple-  
14 menting the various requirements of the  
15 agency and its energy managers under this  
16 subsection; and

17 “(ii) any other means of measuring  
18 performance that the Director considers  
19 appropriate.

20 “(B) AVAILABILITY.—The Director shall  
21 make the scorecards required under this para-  
22 graph available to Congress, other Federal  
23 agencies, and the public through the Internet.

24 “(9) FUNDING AND IMPLEMENTATION.—

1           “(A) AUTHORIZATION OF APPROPRIA-  
2 TIONS.—There are authorized to be appro-  
3 priated such sums as are necessary to carry out  
4 this subsection.

5           “(B) FUNDING OPTIONS.—

6           “(i) IN GENERAL.—To carry out this  
7 subsection, a Federal agency may use any  
8 combination of—

9                   “(I) appropriated funds made  
10 available under subparagraph (A);  
11 and

12                   “(II) private financing, including  
13 financing available through energy  
14 savings performance contracts or util-  
15 ity energy service contracts.

16           “(ii) COMBINED FUNDING FOR SAME  
17 MEASURE.—A Federal agency may use any  
18 combination of appropriated funds and pri-  
19 vate financing described in clause (i) to  
20 carry out the same measure under this  
21 subsection, with proportional allocation for  
22 any energy and water savings.

23           “(iii) LACK OF APPROPRIATED  
24 FUNDS.—Since measures may be carried  
25 out using private financing described in

1 clause (i), a lack of available appropria-  
2 tions shall not be considered a sufficient  
3 reason for the failure of a Federal agency  
4 to comply with this subsection.

5 “(C) IMPLEMENTATION.—Each Federal  
6 agency may implement the requirements under  
7 this subsection itself or may contract out per-  
8 formance of some or all of the requirements.

9 “(10) RULE OF CONSTRUCTION.—This sub-  
10 section shall not be construed either to require or to  
11 obviate any contractor savings guarantees.”.

12 **SEC. 9048. DEMONSTRATION PROJECT.**

13 (a) IN GENERAL.—The Federal Director and the  
14 Commercial Director shall establish guidelines to imple-  
15 ment a demonstration project to contribute to the research  
16 goals of the Office of Commercial High-Performance  
17 Green Buildings and the Office of Federal High-Perform-  
18 ance Green Buildings.

19 (b) PROJECTS.—In accordance with guidelines estab-  
20 lished by the Federal Director and the Commercial Direc-  
21 tor under subsection (a) and the duties of the Federal Di-  
22 rector and the Commercial Director described in this part,  
23 the Federal Director or the Commercial Director shall  
24 carry out—

1           (1) for each of fiscal years 2009 through 2014,  
2           1 demonstration project in a Federal building se-  
3           lected by the Federal Director in accordance with  
4           relevant agencies and described in subsection (c)(1),  
5           that—

6                   (A) provides for the evaluation of the in-  
7                   formation obtained through the conduct of  
8                   projects and activities under this part; and

9                   (B) achieves the highest rating offered by  
10                  an existing high-performance green building  
11                  rating system that is developed through a con-  
12                  sensus-based process, provides minimum re-  
13                  quirements in all performance categories, re-  
14                  quires substantiating documentation and  
15                  verifiable calculations, employs third-party post-  
16                  construction review and verification, and is na-  
17                  tionally recognized within the building industry;

18          (2) no fewer than 4 demonstration projects at  
19          4 universities, that, as competitively selected by the  
20          Commercial Director in accordance with subsection  
21          (c)(2), have—

22                   (A) appropriate research resources and rel-  
23                   evant projects to meet the goals of the dem-  
24                   onstration project established by the Office of

1 Commercial High-Performance Green Build-  
2 ings; and

3 (B) the ability—

4 (i) to serve as a model for high-per-  
5 formance green building initiatives, includ-  
6 ing research and education;

7 (ii) to identify the most effective ways  
8 to use high-performance green building and  
9 landscape technologies to engage and edu-  
10 cate undergraduate and graduate students;

11 (iii) to effectively implement a high-  
12 performance green building education pro-  
13 gram for students and occupants;

14 (iv) to demonstrate the effectiveness  
15 of various high-performance technologies in  
16 each of the 4 climatic regions of the  
17 United States described in subsection  
18 (c)(2)(B); and

19 (v) to explore quantifiable and non-  
20 quantifiable beneficial impacts on public  
21 health and employee and student perform-  
22 ance;

23 (3) demonstration projects to evaluate  
24 replicable approaches to achieving various types of  
25 commercial buildings in various climates; and

1           (4) deployment activities to disseminate infor-  
2           mation on and encourage widespread adoption of  
3           technologies, practices, and policies to achieve zero-  
4           net-energy commercial buildings or low energy use  
5           and effective monitoring of energy use in commercial  
6           buildings.

7           (c) CRITERIA.—

8           (1) FEDERAL FACILITIES.—With respect to the  
9           existing or proposed Federal facility at which a dem-  
10          onstration project under this section is conducted,  
11          the Federal facility shall—

12                   (A) be an appropriate model for a project  
13                   relating to—

14                           (i) the effectiveness of high-perform-  
15                           ance technologies;

16                           (ii) analysis of materials, components,  
17                           systems, and emergency operations in the  
18                           building, and the impact of those mate-  
19                           rials, components, and systems, including  
20                           the impact on the health of building occu-  
21                           pants;

22                           (iii) life-cycle costing and life-cycle as-  
23                           sessment of building materials and sys-  
24                           tems; and

1 (iv) location and design that promote  
2 access to the Federal facility through walk-  
3 ing, biking, and mass transit; and

4 (B) possess sufficient technological and or-  
5 ganizational adaptability.

6 (2) UNIVERSITIES.—With respect to the 4 uni-  
7 versities at which a demonstration project under this  
8 section is conducted—

9 (A) the universities should be selected,  
10 after careful review of all applications received  
11 containing the required information, as deter-  
12 mined by the Commercial Director, based on—

13 (i) successful and established public-  
14 private research and development partner-  
15 ships;

16 (ii) demonstrated capabilities to con-  
17 struct or renovate buildings that meet high  
18 indoor environmental quality standards;

19 (iii) organizational flexibility;

20 (iv) technological adaptability;

21 (v) the demonstrated capacity of at  
22 least 1 university to replicate lessons  
23 learned among nearby or sister univer-  
24 sities, preferably by participation in groups  
25 or consortia that promote sustainability;

1 (vi) the demonstrated capacity of at  
2 least 1 university to have officially-adopt-  
3 ed, institution-wide “high-performance  
4 green building” guidelines for all campus  
5 building projects; and

6 (vii) the demonstrated capacity of at  
7 least 1 university to have been recognized  
8 by similar institutions as a national leader  
9 in sustainability education and curriculum  
10 for students of the university; and

11 (B) each university shall be located in a  
12 different climatic region of the United States,  
13 each of which regions shall have, as determined  
14 by the Office of Commercial High-Performance  
15 Green Buildings—

16 (i) a hot, dry climate;

17 (ii) a hot, humid climate;

18 (iii) a cold climate; or

19 (iv) a temperate climate (including a  
20 climate with cold winters and humid sum-  
21 mers).

22 (d) REPORT.—Not later than 1 year after the date  
23 of enactment of this Act, and annually thereafter through  
24 September 30, 2014—

1           (1) the Federal Director and the Commercial  
2 Director shall submit to the Secretary a report that  
3 describes the status of the demonstration projects;  
4 and

5           (2) each University at which a demonstration  
6 project under this section is conducted shall submit  
7 to the Secretary a report that describes the status  
8 of the demonstration projects under this section.

9 **SEC. 9049. ENERGY EFFICIENCY FOR DATA CENTER BUILD-**  
10 **INGS.**

11 (a) IN GENERAL.—

12           (1) Not later than 90 days after the date of en-  
13 actment of this Act, the Secretary of Energy and  
14 Administrator of the Environmental Protection  
15 Agency shall jointly, after consulting with informa-  
16 tion technology industry and other interested par-  
17 ties, initiate a voluntary national information pro-  
18 gram for those types of data centers and data center  
19 equipment and facilities that are widely used and for  
20 which there is a potential for significant data center  
21 energy savings as a result of such program.

22           (2) Such program shall—

23           (A) consistent with the objectives of para-  
24 graph (1), determine the type of data center

1 and data center equipment and facilities to be  
2 covered under such program; and

3 (B) include specifications, measurements,  
4 and benchmarks that will enable data center op-  
5 erators to make more informed decisions about  
6 the energy efficiency and costs of data centers,  
7 and that—

8 (i) reflect the total energy consump-  
9 tion of data centers, including both equip-  
10 ment and facilities, taking into account—

11 (I) the performance and utiliza-  
12 tion of servers, data storage devices,  
13 and other information technology  
14 equipment;

15 (II) the efficiency of heating,  
16 ventilation, and air conditioning, cool-  
17 ing, and power conditioning systems;

18 (III) energy savings from the  
19 adoption of software and data man-  
20 agement techniques; and

21 (IV) other factors determined by  
22 the organization described in sub-  
23 section (b);

24 (ii) allow for creation of separate  
25 specifications, measurements, and bench-

1 marks based on data center size and func-  
2 tion, as well as other appropriate charac-  
3 teristics determined by the organization  
4 described in subsection (b);

5 (iii) advance the design and imple-  
6 mentation of efficiency technologies to the  
7 maximum extent economically practical;  
8 and

9 (iv) provide to data center operators  
10 in the private sector and the Federal Gov-  
11 ernment information about best practices  
12 and purchasing decisions that reduce the  
13 energy consumption of data centers;

14 (C) publish the information described in  
15 subparagraph (B), which may be disseminated  
16 through catalogs, trade publications, the Inter-  
17 net, or other mechanisms, that will allow data  
18 center operators to assess the energy consump-  
19 tion and potential cost savings of alternative  
20 data centers and data center equipment and fa-  
21 cilities; and

22 (D) not later than 1 year after the date of  
23 enactment of this Act, and thereafter on an on-  
24 going basis, transmit the information described

1           in subparagraph (B) to the Secretary and the  
2           Administrator.

3           (3) Such program shall be developed and co-  
4           ordinated by the data center efficiency organization  
5           described in subsection (b) according to commonly  
6           accepted procedures for the development of specifica-  
7           tions, measurements, and benchmarks.

8           (b) DATA CENTER EFFICIENCY ORGANIZATION.—  
9           Upon creation of the program under subsection (a), the  
10          Secretary and the Administrator shall jointly designate an  
11          information technology industry organization to coordi-  
12          nate the program. Such organization, whether preexisting  
13          or formed specifically for the purposes of subsection (a),  
14          shall—

15               (1) consist of interested parties that have exper-  
16               tise in energy efficiency and in the development, op-  
17               eration, and functionality of computer data centers,  
18               information technology equipment, and software, as  
19               well as representatives of hardware manufacturers,  
20               data center operators, and facility managers;

21               (2) obtain and address input from Department  
22               of Energy National Laboratories or any college, uni-  
23               versity, research institution, industry association,  
24               company, or public interest group with applicable ex-

1       pertise in any of the areas listed in paragraph (1)  
2       of this subsection;

3               (3) follow commonly accepted procedures for  
4       the development of specifications and accredited  
5       standards development processes;

6               (4) have a mission to develop and promote en-  
7       ergy efficiency for data centers and information  
8       technology; and

9               (5) have the primary responsibility to oversee  
10      the development and publishing of the information,  
11      measurements, and benchmarks described in sub-  
12      section (a) and transmission of such information to  
13      the Secretary and the Administrator for their adop-  
14      tion under subsection (c).

15      (c) ADOPTION OF SPECIFICATIONS.—The Secretary  
16      and the Administrator shall jointly, in accordance with the  
17      requirements of section 12(d) of the National Technology  
18      Transfer Advancement Act of 1995, adopt and publish the  
19      specifications, measurements, and benchmarks described  
20      in subsection (a) for use by the Federal Energy Manage-  
21      ment Program and the Energy Star program as energy  
22      efficiency requirements for the purposes of those pro-  
23      grams.

24      (d) MONITORING.—The Secretary and the Adminis-  
25      trator shall jointly monitor and evaluate the efforts to de-

1 velop the program described in subsection (a) and, not  
2 later than 3 years after the date of enactment of this Act,  
3 shall make a determination as to whether such program  
4 is consistent with the objectives of subsection (a).

5 (e) ALTERNATIVE SYSTEM.—If the Secretary and the  
6 Administrator make a determination under subsection (d)  
7 that a voluntary national information program for data  
8 centers consistent with the objectives of subsection (a) has  
9 not been developed, the Secretary and the Administrator  
10 shall jointly, after consultation with the National Institute  
11 of Standards and Technology, develop, not later than 2  
12 years after such determination, and implement the pro-  
13 gram under subsection (a).

14 (f) PROTECTION OF PROPRIETARY INFORMATION.—  
15 The Secretary, the Administrator, or the data center effi-  
16 ciency organization shall not disclose any proprietary in-  
17 formation or trade secrets provided by any individual or  
18 company for the purposes of carrying out this program.

19 (g) DEFINITIONS.—For purposes of this section:

20 (1) The term “data center” means any facility  
21 that primarily contains electronic equipment used to  
22 process, store, and transmit digital information,  
23 which may be—

24 (A) a free-standing structure; or

1 (B) a facility within a larger structure,  
2 that utilizes environmental control equipment to  
3 maintain the proper conditions for the oper-  
4 ation of electronic equipment.

5 (2) The term “data center operator” means any  
6 person or government entity that builds or operates  
7 a data center or purchases data center services,  
8 equipment, and facilities.

9 **SEC. 9050. AUTHORIZATION OF APPROPRIATIONS.**

10 (a) IN GENERAL.—In addition to amounts authorized  
11 under subsections (b), (c), and (d), there are authorized  
12 to be appropriated to carry out this part, other than section  
13 9052—

14 (1) \$10,000,000 for fiscal year 2008; and

15 (2) \$20,000,000 for each of the fiscal years  
16 2009 through 2014, to remain available until ex-  
17 pended.

18 (b) ZERO-ENERGY COMMERCIAL BUILDINGS INITIA-  
19 TIVE.—There are authorized to be appropriated to carry  
20 out the initiative described in section 9044—

21 (1) \$20,000,000 for fiscal year 2008;

22 (2) \$50,000,000 for each of fiscal years 2009  
23 and 2010;

24 (3) \$100,000,000 for each of fiscal years 2011  
25 and 2012;

1           (4) \$200,000,000 for each of fiscal years 2013  
2 through 2050.

3           (c) DEMONSTRATION PROJECTS.—

4           (1) FEDERAL DEMONSTRATION PROJECT.—

5 There are authorized to be appropriated to carry out  
6 the Federal demonstration project described  
7 in section 9048(b)(1) \$10,000,000 for the period of  
8 fiscal years 2009 through 2014, to remain available  
9 until expended.

10          (2) UNIVERSITY DEMONSTRATION PROJECTS.—

11 There are authorized to be appropriated to carry out  
12 the university demonstration projects described  
13 in section 9048(b)(2) \$10,000,000 for the period of  
14 fiscal years 2009 through 2014, to remain available  
15 until expended.

16          (d) ENERGY EFFICIENCY FOR DATA CENTER BUILD-  
17 INGS.—There are authorized to be appropriated to each  
18 of the Secretary and the Administrator for carrying  
19 out section 9049 \$250,000 for each of the fiscal years 2008  
20 through 2012.

21 **SEC. 9051. STUDY AND REPORT ON USE OF POWER MAN-**  
22 **AGEMENT SOFTWARE.**

23          (a) STUDY.—The Secretary of Energy, through the  
24 Federal Energy Management Program, shall conduct a  
25 study on the use of power management software by the

1 Department of Energy and Federal facilities to reduce the  
2 use of electricity in computer monitors and personal com-  
3 puters.

4 (b) REPORT.—Not later than 60 days after the date  
5 of enactment of the Act, the Secretary shall submit to  
6 Congress a report containing the results of the study  
7 under subsection (a), including a description of the rec-  
8 ommendations developed under the study. The Secretary  
9 and the Federal Energy Management Program are en-  
10 couraged to draw upon similar studies and efforts by other  
11 Federal entities on power management software.

12 **SEC. 9052. HIGH-PERFORMANCE GREEN BUILDINGS RET-**  
13 **ROFIT LOAN GUARANTEES.**

14 (a) DEFINITIONS.—In this section:

15 (1) COST.—The term “cost” has the meaning  
16 given the term “cost of a loan guarantee” within the  
17 meaning of section 502(5)(C) of the Federal Credit  
18 Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

19 (2) GUARANTEE.—

20 (A) IN GENERAL.—The term “guarantee”  
21 has the meaning given the term “loan guar-  
22 antee” in section 502 of the Federal Credit Re-  
23 form Act of 1990 (2 U.S.C. 661a).

24 (B) INCLUSION.—The term “guarantee”  
25 includes a loan guarantee commitment (as de-

1            fined in section 502 of the Federal Credit Re-  
2            form Act of 1990 (2 U.S.C. 661a)).

3            (3) OBLIGATION.—The term “obligation”  
4            means the loan or other debt obligation that is guar-  
5            anteed under this section.

6            (4) SECRETARY.—The term “Secretary” means  
7            the Secretary of Energy.

8            (b) ELIGIBLE PURPOSES.—Except for division C of  
9            Public Law 108–423, the Commercial Director shall make  
10           loan guarantees under this section for renovation projects  
11           that are eligible projects within the meaning of section  
12           1703 of the Energy Policy Act of 2005 and that will result  
13           in a building achieving the United States Green Building  
14           Council Leadership in Energy and Environmental Design  
15           “certified” level, or meeting a comparable standard ap-  
16           proved by the Commercial Director.

17           (c) TERMS AND CONDITIONS.—

18            (1) IN GENERAL.—The Commercial Director  
19            shall make guarantees under this section for projects  
20            on such terms and conditions as the Commercial Di-  
21            rector determines, after consultation with the Sec-  
22            retary of the Treasury, in accordance with this sec-  
23            tion, including limitations on the amount of any loan  
24            guarantee to ensure distribution to a variety of bor-  
25            rowers.

1           (2) SPECIFIC APPROPRIATION OR CONTRIBU-  
2           TION.—No guarantee shall be made under this sec-  
3           tion unless—

4                   (A) an appropriation for the cost has been  
5           made; or

6                   (B) the Commercial Director has received  
7           from the borrower a payment in full for the  
8           cost of the obligation and deposited the pay-  
9           ment into the Treasury.

10          (3) LIMITATION.—Not more than \$100,000,000  
11          in loans may be guaranteed under this section at  
12          any one time.

13          (4) AMOUNT.—Unless otherwise provided by  
14          law, a guarantee by the Commercial Director under  
15          this section shall not exceed an amount equal to 80  
16          percent of the project cost that is the subject of the  
17          guarantee, as estimated at the time at which the  
18          guarantee is issued.

19          (5) REPAYMENT.—No guarantee shall be made  
20          under this section unless the Commercial Director  
21          determines that there is reasonable prospect of re-  
22          payment of the principal and interest on the obliga-  
23          tion by the borrower.

24          (6) INTEREST RATE.—An obligation shall bear  
25          interest at a rate that does not exceed a level that

1 the Commercial Director determines appropriate,  
2 taking into account the prevailing rate of interest in  
3 the private sector for similar loans and risks.

4 (7) TERM.—The term of an obligation shall re-  
5 quire full repayment over a period not to exceed the  
6 lesser of—

7 (A) 30 years; or

8 (B) 90 percent of the projected useful life  
9 of the building whose renovation is to be fi-  
10 nanced by the obligation (as determined by the  
11 Commercial Director).

12 (8) DEFAULTS.—

13 (A) PAYMENT BY COMMERCIAL DIREC-  
14 TOR.—

15 (i) IN GENERAL.—If a borrower de-  
16 faults on the obligation (as defined in reg-  
17 ulations promulgated by the Commercial  
18 Director and specified in the guarantee  
19 contract), the holder of the guarantee shall  
20 have the right to demand payment of the  
21 unpaid amount from the Commercial Di-  
22 rector.

23 (ii) PAYMENT REQUIRED.—Within  
24 such period as may be specified in the  
25 guarantee or related agreements, the Com-

1           mercial Director shall pay to the holder of  
2           the guarantee the unpaid interest on, and  
3           unpaid principal of the obligation as to  
4           which the borrower has defaulted, unless  
5           the Commercial Director finds that there  
6           was no default by the borrower in the pay-  
7           ment of interest or principal or that the  
8           default has been remedied.

9           (iii) FORBEARANCE.—Nothing in this  
10          paragraph precludes any forbearance by  
11          the holder of the obligation for the benefit  
12          of the borrower which may be agreed upon  
13          by the parties to the obligation and ap-  
14          proved by the Commercial Director.

15         (B) SUBROGATION.—

16           (i) IN GENERAL.—If the Commercial  
17          Director makes a payment under subpara-  
18          graph (A), the Commercial Director shall  
19          be subrogated to the rights of the recipient  
20          of the payment as specified in the guar-  
21          antee or related agreements including,  
22          where appropriate, the authority (notwith-  
23          standing any other provision of law) to—

24                   (I) complete, maintain, operate,  
25                   lease, or otherwise dispose of any

1 property acquired pursuant to such  
2 guarantee or related agreements; or

3 (II) permit the borrower, pursu-  
4 ant to an agreement with the Com-  
5 mercial Director, to continue to pur-  
6 sue the purposes of the project if the  
7 Commercial Director determines this  
8 to be in the public interest.

9 (ii) SUPERIORITY OF RIGHTS.—The  
10 rights of the Commercial Director, with re-  
11 spect to any property acquired pursuant to  
12 a guarantee or related agreements, shall be  
13 superior to the rights of any other person  
14 with respect to the property.

15 (iii) TERMS AND CONDITIONS.—A  
16 guarantee agreement shall include such de-  
17 tailed terms and conditions as the Com-  
18 mercial Director determines appropriate  
19 to—

20 (I) protect the interests of the  
21 United States in the case of default;  
22 and

23 (II) have available all the patents  
24 and technology necessary for any per-  
25 son selected, including the Commer-

1                   cial Director, to complete and operate  
2                   the project.

3                   (C) PAYMENT OF PRINCIPAL AND INTER-  
4                   EST BY COMMERCIAL DIRECTOR.—With respect  
5                   to any obligation guaranteed under this section,  
6                   the Commercial Director may enter into a con-  
7                   tract to pay, and pay, holders of the obligation,  
8                   for and on behalf of the borrower, from funds  
9                   appropriated for that purpose, the principal and  
10                  interest payments which become due and pay-  
11                  able on the unpaid balance of the obligation if  
12                  the Commercial Director finds that—

13                   (i)(I) the borrower is unable to meet  
14                   the payments and is not in default;

15                   (II) it is in the public interest to per-  
16                   mit the borrower to continue to pursue the  
17                   purposes of the project; and

18                   (III) the probable net benefit to the  
19                   Federal Government in paying the prin-  
20                   cipal and interest will be greater than that  
21                   which would result in the event of a de-  
22                   fault;

23                   (ii) the amount of the payment that  
24                   the Commercial Director is authorized to  
25                   pay shall be no greater than the amount of

1 principal and interest that the borrower is  
2 obligated to pay under the agreement  
3 being guaranteed; and

4 (iii) the borrower agrees to reimburse  
5 the Commercial Director for the payment  
6 (including interest) on terms and condi-  
7 tions that are satisfactory to the Commer-  
8 cial Director.

9 (D) ACTION BY ATTORNEY GENERAL.—

10 (i) NOTIFICATION.—If the borrower  
11 defaults on an obligation, the Commercial  
12 Director shall notify the Attorney General  
13 of the default.

14 (ii) RECOVERY.—On notification, the  
15 Attorney General shall take such action as  
16 is appropriate to recover the unpaid prin-  
17 cipal and interest due from—

18 (I) such assets of the defaulting  
19 borrower as are associated with the  
20 obligation; or

21 (II) any other security pledged to  
22 secure the obligation.

23 (9) FEES.—

24 (A) IN GENERAL.—The Commercial Direc-  
25 tor shall charge and collect fees for guarantees

1 in amounts the Commercial Director determines  
2 are sufficient to cover applicable administrative  
3 expenses.

4 (B) AVAILABILITY.—Fees collected under  
5 this paragraph shall—

6 (i) be deposited by the Commercial  
7 Director into the Treasury; and

8 (ii) remain available until expended,  
9 subject to such other conditions as are con-  
10 tained in annual appropriations Acts.

11 (10) RECORDS; AUDITS.—

12 (A) IN GENERAL.—A recipient of a guar-  
13 antee shall keep such records and other perti-  
14 nent documents as the Commercial Director  
15 shall prescribe by regulation, including such  
16 records as the Commercial Director may require  
17 to facilitate an effective audit.

18 (B) ACCESS.—The Commercial Director  
19 and the Comptroller General of the United  
20 States, or their duly authorized representatives,  
21 shall have access, for the purpose of audit, to  
22 the records and other pertinent documents.

23 (11) FULL FAITH AND CREDIT.—The full faith  
24 and credit of the United States is pledged to the

1 payment of all guarantees issued under this section  
2 with respect to principal and interest.

3 **PART 5—INDUSTRIAL ENERGY EFFICIENCY**

4 **SEC. 9061. INDUSTRIAL ENERGY EFFICIENCY.**

5 (a) AMENDMENT.—Title III of the Energy Policy and  
6 Conservation Act (42 U.S.C. 6201 and following) is  
7 amended by adding the following after part D:

8 **“PART E—INDUSTRIAL ENERGY EFFICIENCY**

9 **“SEC. 371. SURVEY OF WASTE INDUSTRIAL ENERGY RECOV-**  
10 **ERY AND POTENTIAL USE.**

11 “Congress finds that—

12 “(1) the Nation should encourage the use of  
13 otherwise wasted energy and the development of  
14 combined heat and power and other waste energy re-  
15 covery projects where there is wasted thermal energy  
16 in large volumes at potentially useful temperatures;

17 “(2) such projects would increase energy effi-  
18 ciency and lower pollution by generating power with  
19 no incremental fossil fuel consumption;

20 “(3) because recovered waste energy and com-  
21 bined heat and power projects are associated with  
22 end-uses of thermal energy and electricity at the  
23 local level, they help avoid new transmission lines,  
24 reduce line losses, reduce local air pollutant emis-

1 sions, and reduce vulnerability to extreme weather  
2 and terrorism; and

3 “(4) States, localities, electric utilities, and  
4 other electricity customers may benefit from private  
5 investments in recovered waste energy and combined  
6 heat and power projects at industrial and commer-  
7 cial sites by avoiding generation, transmission and  
8 distribution expenses, and transmission line loss ex-  
9 penses that may otherwise be required to be recov-  
10 ered from ratepayers.

11 **“SEC. 372. DEFINITIONS.**

12 “For purposes of this Part:

13 “(1) The term ‘Administrator’ means the Ad-  
14 ministrator of the Environmental Protection Agency.

15 “(2) The term ‘waste energy’ means\_\_

16 “(A) exhaust heat and flared gases from  
17 any industrial process;

18 “(B) waste gas or industrial tail gas that  
19 would otherwise be flared, incinerated or vent-  
20 ed;

21 “(C) a pressure drop in any gas, excluding  
22 any pressure drop to a condenser that subse-  
23 quently vents the resulting heat; and

24 “(D) such other forms of waste energy as  
25 the Administrator may identify.

1           “(3) The term ‘recoverable waste energy’ means  
2 waste energy from which electricity or useful ther-  
3 mal energy may be recovered through modification  
4 of existing facilities or addition of new facilities.

5           “(4) The term ‘net excess power’ means, for  
6 any facility, recoverable waste energy recovered in  
7 the form of electricity in amounts exceeding the total  
8 consumption of electricity at the specific time of gen-  
9 eration on the site where the facility is located.

10           “(5) The term ‘useful thermal energy’ is energy  
11 in the forms of direct heat, steam, hot water, or  
12 other thermal forms that is used in production and  
13 beneficial measures for heating, cooling, humidity  
14 control, process use, or other valid thermal end-use  
15 energy requirements, and for which fuel or elec-  
16 tricity would otherwise be consumed.

17           “(6) The term ‘combined heat and power sys-  
18 tem’ means a facility—

19                   “(A) that simultaneously and efficiently  
20 produces useful thermal energy and electricity;  
21 and

22                   “(B) that recovers not less than 60 percent  
23 of the energy value in the fuel (on a lower-heat-  
24 ing-value basis) in the form of useful thermal  
25 energy and electricity.

1           “(7) The terms ‘electric utility’, ‘State regu-  
2           lated electric utility’, ‘nonregulated electric utility’  
3           and other terms used in this Part have the same  
4           meanings as when such terms are used in title I of  
5           the Public Utility Regulatory Policies Act of 1978  
6           (relating to retail regulatory policies for electric utili-  
7           ties).

8   **“SEC. 373. SURVEY AND REGISTRY.**

9           “(a) RECOVERABLE WASTE-ENERGY INVENTORY  
10 PROGRAM.—The Administrator, in cooperation with State  
11 energy offices, shall establish a Recoverable Waste-Energy  
12 Inventory Program. The program shall include an ongoing  
13 survey of all major industrial and large commercial com-  
14 bustion sources in the United States and the sites where  
15 these are located, together with a review of each for quan-  
16 tity and quality of waste energy.

17           “(b) CRITERIA.—The Administrator shall, within 120  
18 days after the enactment of this section, develop and pub-  
19 lish proposed criteria subject to notice and comment, and  
20 within 270 days of enactment, establish final criteria, to  
21 identify and designate those sources and sites in the inven-  
22 tory under subsection (a) where recoverable waste energy  
23 projects or combined heat and power system projects may  
24 have economic feasibility with a payback of invested costs  
25 within 5 years or less from the date of first full project

1 operation (including incentives offered under this Part).  
2 Such criteria will include standards that insure that  
3 projects proposed for inclusion in the Registry are not de-  
4 veloped for the primary purpose of making sales of excess  
5 electric power under the regulatory treatment provided  
6 under this Part.

7       “(c) TECHNICAL SUPPORT.—The Administrator shall  
8 provide to owners or operators of combustion sources tech-  
9 nical support and offer partial funding (up to one-half of  
10 total costs) for feasibility studies to confirm whether or  
11 not investment in recovery of waste energy or combined  
12 heat and power at that source would offer a payback pe-  
13 riod of 5 years or less.

14       “(d) REGISTRY.—(1) The Administrator shall, within  
15 one year after the enactment of this section, establish a  
16 Registry of Recoverable Waste-energy Sources, and sites  
17 on which those sources are located, which meet the criteria  
18 set forth under subsection (b). The Administrator shall  
19 update the Registry on not less than a monthly basis, and  
20 make the Registry accessible to the public on the Environ-  
21 mental Protection Agency web site. Any State or electric  
22 utility may contest the listing of any source or site by sub-  
23 mitting a petition to the Administrator.

24       “(2) The Administrator shall register and include on  
25 the Registry all sites meeting the criteria of subsection (b).

1 The Administrator shall calculate the total amounts of po-  
2 tentially recoverable waste energy from sources at such  
3 sites, nationally and by State, and shall make such totals  
4 public, together with information on the air pollutant and  
5 greenhouse gas emissions savings that might be achieved  
6 with recovery of the waste energy from all sources and  
7 sites listed in the Registry.

8 “(3) The Administrator shall notify owners or opera-  
9 tors of Recoverable Waste-Energy Sources and sites listed  
10 in the Registry prior to publishing the listing. The owner  
11 or operator of sources at such sites may elect to have de-  
12 tailed quantitative information concerning that site not  
13 made public by notifying the Administrator of that elec-  
14 tion. Information concerning that site shall be included in  
15 State totals unless there are fewer than 3 sites in the  
16 State.

17 “(4) As waste energy projects achieve successful re-  
18 covery of waste energy, the Administrator shall remove the  
19 related sites or sources from the Registry, and shall des-  
20 ignate the removed projects as eligible for the incentive  
21 provisions provided under this Part and the regulatory  
22 treatment required by this Part. No project shall be re-  
23 moved from the Registry without the consent of the owner  
24 or operator of the project if the owner or operator has

1 submitted a petition under section 375 and such petition  
2 has not been acted upon or denied.

3 “(5) The Administrator shall not list any source con-  
4 structed after the date of the enactment of this Part on  
5 the Registry if the Administrator determines that such  
6 source—

7 “(A) was developed for the primary purpose of  
8 making sales of excess electric power under the reg-  
9 ulatory treatment provided under this Part; or

10 “(B) does not capture at least 60 percent of the  
11 total energy value of the fuels used (on a lower-heat-  
12 ing-value basis) in the form of useful thermal en-  
13 ergy, electricity, mechanical energy, chemical output,  
14 or some combination of them.

15 “(e) SELF-CERTIFICATION.—Owners, operators, or  
16 third-party developers of industrial waste-energy projects  
17 that qualify under standards established by the Adminis-  
18 trator may self-certify their sites or sources to the Admin-  
19 istrator for inclusion in the Registry, subject to procedures  
20 adopted by the Administrator. To prevent a fraudulent  
21 listing, the sources shall be included on the Registry only  
22 if the Administrator confirms the submitted data, at the  
23 Administrator’s discretion.

24 “(f) NEW FACILITIES.—As a new energy-consuming  
25 industrial facility is developed after the enactment of this

1 Part, to the extent it may constitute a site with recover-  
2 able waste energy that may qualify for the Registry, the  
3 Administrator may elect to include it in the Registry at  
4 the request of its owner or operator or developer on a con-  
5 ditional basis, removing the site if its development ceases  
6 or it if fails to qualify for listing under this Part.

7       “(g) OPTIMUM MEANS OF RECOVERY.—For each site  
8 listed in the Registry, at the request of the owner or oper-  
9 ator of the site, the Administrator shall offer, in coopera-  
10 tion with Clean Energy Application Centers operated by  
11 the Secretary of Energy, suggestions of optimum means  
12 of recovery of value from waste energy stream in the form  
13 of electricity, useful thermal energy, or other energy-re-  
14 lated products.

15       “(h) REVISION.—Each annual State report under  
16 section 548(a) of the National Energy Conservation Policy  
17 Act shall include the results of the survey for that State  
18 under this section.

19       “(i) AUTHORIZATION.—There are authorized to be  
20 appropriated to the Administrator for the purposes of cre-  
21 ating and maintaining the Registry and services author-  
22 ized by this section not more than \$1,000,000 for each  
23 of fiscal years 2008, 2009, 2010, 2010, and 2012 and not  
24 more than \$5,000,000 to the States to provide funding  
25 for State energy office functions under this section.

1 **“SEC. 374. WASTE ENERGY RECOVERY INCENTIVE GRANT**  
2 **PROGRAM.**

3 “(a) ESTABLISHMENT OF PROGRAM.—There is es-  
4 tablished in the Environmental Protection Agency a Waste  
5 Energy Recovery Incentive Grant Program to provide in-  
6 centive grants to owners and operators of projects that  
7 successfully produce electricity or incremental useful ther-  
8 mal energy from waste energy recovery (and to utilities  
9 purchasing or distributing such electricity) and to reward  
10 States that have achieved 80 percent or more of identified  
11 waste-heat recovery opportunities.

12 “(b) GRANTS TO PROJECTS AND UTILITIES.—

13 “(1) IN GENERAL.—The Administrator shall  
14 make grants to the owners or operators of waste en-  
15 ergy recovery projects, and, in the case of excess  
16 power purchased or transmitted by a electric utility,  
17 to such utility. Grants may only be made upon re-  
18 ceipt of proof of waste energy recovery or excess  
19 electricity generation, or both, from the project in a  
20 form prescribed by the Administrator, by rule.

21 “(2) EXCESS ELECTRIC ENERGY.—In the case  
22 of waste energy recovery, the grants under this sec-  
23 tion shall be made at the rate of \$10 per megawatt  
24 hour of documented electricity produced from recov-  
25 ered waste energy (or by prevention of waste energy  
26 in the case of a new facility) by the project during

1 the first 3 calendar years of such production, begin-  
2 ning on or after the date of enactment of this Part.  
3 If the project produces net excess power and an elec-  
4 tric utility purchases or transmits the excess power,  
5 50 percent of so much of such grant as is attrib-  
6 utable to the net excess power shall be paid to the  
7 electric utility purchasing or transporting the net ex-  
8 cess power.

9 “(3) USEFUL THERMAL ENERGY.—In the case  
10 of waste energy recovery that produces useful ther-  
11 mal energy that is used for a purpose different from  
12 that for which the project is principally designed, the  
13 grants under this section shall be made to the owner  
14 or operator of the waste energy recovery project at  
15 the rate of \$10 for each 3,412,000 Btus of such ex-  
16 cess thermal energy used for such different purpose.

17 “(c) GRANTS TO STATES.—In the case of States that  
18 have achieved 80 percent or more of waste-heat recovery  
19 opportunities identified by the Administrator under this  
20 Part, the Administrator shall make grants to the States  
21 of up to \$1,000 per Megawatt of waste-heat capacity re-  
22 covered (or its thermal equivalent) to support State-level  
23 programs to identify and achieve additional energy effi-  
24 ciency.



1 thority (with respect to each electric utility for which it  
2 has ratemaking authority), or nonregulated electric utility,  
3 of a request from a project sponsor or owner or operator,  
4 the State regulatory authority or nonregulated electric  
5 utility shall provide public notice and conduct a hearing  
6 respecting the standard established by subsection (b) and,  
7 on the basis of such hearing, shall consider and make a  
8 determination whether or not it is appropriate to imple-  
9 ment such standard to carry out the purposes of this Part.  
10 For purposes of any such determination and any review  
11 of such determination in any court the purposes of this  
12 section supplement otherwise applicable State law. Noth-  
13 ing in this Part prohibits any State regulatory authority  
14 or nonregulated electric utility from making any deter-  
15 mination that it is not appropriate to adopt any such  
16 standard, pursuant to its authority under otherwise appli-  
17 cable State law.

18       “(b) STANDARD FOR SALES OF EXCESS POWER.—  
19 For purposes of this section, the standard referred to in  
20 subsection (a) shall provide that an owner or operator of  
21 a waste energy recovery project identified on the Registry  
22 who generates net excess power shall be eligible to benefit  
23 from at least one of the options described in subsection  
24 (c) for disposal of the net excess power in accordance with

1 the rate conditions and limitations described in subsection  
2 (d).

3 “(c) OPTIONS.—The options referred to in subsection  
4 (b) are as follows:

5 “(1) SALE OF NET EXCESS POWER TO UTIL-  
6 ITY.—The electric utility shall purchase the net ex-  
7 cess power from the owner or operator of the eligible  
8 waste-energy recovery project during the operation  
9 of the project under a contract entered into for that  
10 purpose.

11 “(2) TRANSPORT BY UTILITY FOR DIRECT SALE  
12 TO THIRD PARTY.—The electric utility shall transmit  
13 the net excess power on behalf of the project owner  
14 or operator to up to three separate locations on that  
15 utility’s system for direct sale by that owner or oper-  
16 ator to third parties at such locations.

17 “(3) TRANSPORT OVER PRIVATE TRANSMISSION  
18 LINES.—The State and the electric utility shall per-  
19 mit, and shall waive or modify such laws as would  
20 otherwise prohibit, the construction and operation of  
21 private electric wires constructed, owned and oper-  
22 ated by the project owner or operator, to transport  
23 such power to up to 3 purchasers within a 3-mile ra-  
24 dius of the project, allowing such wires to utilize or  
25 cross public rights-of-way, without subjecting the

1 project to regulation as a public utility, and accord-  
2 ing such wires the same treatment for safety, zon-  
3 ing, land-use and other legal privileges as apply or  
4 would apply to the utility's own wires, except that—

5 “(A) there shall be no grant of any power  
6 of eminent domain to take or cross private  
7 property for such wires, and

8 “(B) such wires shall be physically seg-  
9 regated and not interconnected with any portion  
10 of the utility's system, except on the customer's  
11 side of the utility's revenue meter and in a  
12 manner that precludes any possible export of  
13 such electricity onto the utility system, or dis-  
14 ruption of such system.

15 “(4) AGREED UPON ALTERNATIVES.—The util-  
16 ity and the owner or operator of the project may  
17 reach agreement on any alternate arrangement and  
18 its associated payments or rates that is mutually  
19 satisfactory and in accord with State law.

20 “(d) RATE CONDITIONS AND CRITERIA.—

21 “(1) IN GENERAL.—The options described in  
22 paragraphs (1) and (2) in subsection (c) shall be of-  
23 fered under purchase and transport rate conditions  
24 reflecting the rate components defined under para-  
25 graph (2) of this subsection as applicable under the

1 circumstances described in paragraph (3) of this  
2 subsection.

3 “(2) RATE COMPONENTS.—For purposes of this  
4 section:

5 “(A) PER UNIT DISTRIBUTION COSTS.—  
6 The term ‘per unit distribution costs’ means the  
7 utility’s depreciated book-value distribution sys-  
8 tem costs divided by the previous year’s volume  
9 of utility electricity sales or transmission at the  
10 distribution level in kilowatt hours.

11 “(B) PER UNIT DISTRIBUTION MARGIN.—  
12 The term ‘per unit distribution margin’ means:

13 “(i) In the case of a State regulated  
14 electric utility, a per-unit gross pretax  
15 profit determined by multiplying the util-  
16 ity’s State-approved percentage rate of re-  
17 turn for distribution system assets by the  
18 per unit distribution costs.

19 “(ii) In the case of an nonregulated  
20 utility, a per unit contribution to net reve-  
21 nues determined by dividing the amount of  
22 any net revenue payment or contribution  
23 to the nonregulated utility’s owners or sub-  
24 scribers in the prior year by the utility’s  
25 gross revenues for the prior year to obtain

1 a percentage (but not less than 10 percent)  
2 and multiplying that percentage by the per  
3 unit distribution costs.

4 “(C) PER UNIT TRANSMISSION COSTS.—  
5 The term ‘per unit transmission costs’ means  
6 the total cost of those transmission services  
7 purchased or provided by a utility on a per-kilo-  
8 watt-hour basis as included in that utility’s re-  
9 tail rate.

10 “(3) APPLICABLE RATES.—

11 “(A) RATES APPLICABLE TO SALE OF NET  
12 EXCESS POWER.—Sales made by a project  
13 owner or operator under the option described in  
14 subsection (c) (1) shall be paid for on a per kil-  
15 owatt hour basis that shall equal the full  
16 undiscounted retail rate paid to the utility for  
17 power purchased by such a facility *minus* per  
18 unit distribution costs, as applicable to the type  
19 of utility purchasing the power. If the net ex-  
20 cess power is made available for purchase at  
21 voltages that must be transformed to or from  
22 voltages exceeding 25 kilovolts to be available  
23 for resale by the utility, then the purchase price  
24 shall further be reduced by per unit trans-  
25 mission costs.

1           “(B) RATES APPLICABLE TO TRANSPORT  
2           BY UTILITY FOR DIRECT SALE TO THIRD PAR-  
3           TIES.—Transportation by utilities of power on  
4           behalf of the owner or operator of a project  
5           under the option described in subsection (c)(2)  
6           shall incur a transportation rate equal to the  
7           per unit distribution costs and per unit dis-  
8           tribution margin, as applicable to the type of  
9           utility transporting the power. If the net excess  
10          power is made available for transportation at  
11          voltages that must be transformed to or from  
12          voltages exceeding 25 kilovolts to be trans-  
13          ported to the designated third-party purchasers,  
14          then the transport rate shall further be in-  
15          creased by per unit transmission costs. In  
16          States with competitive retail markets for elec-  
17          tricity, the applicable transportation rate for  
18          similar transportation shall be applied in lieu of  
19          any rate calculated under this paragraph.

20          “(4) LIMITATIONS.—(A) Any rate established  
21          for sale or transportation under this section shall be  
22          modified over time with changes in the electric util-  
23          ity’s underlying costs or rates, and shall reflect the  
24          same time-sensitivity and billing periods as are es-

1        established in the retail sales or transportation rates  
2        offered by the utility.

3            “(B) No utility shall be required to purchase or  
4        transport an amount of net excess power under this  
5        section that exceeds the available capacity of the  
6        wires, meter, or other equipment of the electric util-  
7        ity serving the site unless the owner or operator of  
8        the project agrees to pay necessary and reasonable  
9        upgrade costs.

10        “(e) PROCEDURAL REQUIREMENTS FOR CONSIDER-  
11        ATION AND DETERMINATION.—(1) The consideration re-  
12        ferred to in subsection (b) shall be made after public no-  
13        tice and hearing. The determination referred to in sub-  
14        section (b) shall be—

15            “(A) in writing,

16            “(B) based upon findings included in such de-  
17        termination and upon the evidence presented at the  
18        hearing, and

19            “(C) available to the public.

20        “(2) The Administrator may intervene as a matter  
21        of right in a proceeding conducted under this section and  
22        may calculate the energy and emissions likely to be saved  
23        by electing to adopt one or more of the options, as well  
24        as the costs and benefits to ratepayers and the utility and  
25        to advocate for the waste-energy recovery opportunity.

1       “(3) Except as otherwise provided in paragraph (1),  
2 and paragraph (2), the procedures for the consideration  
3 and determination referred to in subsection (a) shall be  
4 those established by the State regulatory authority or the  
5 nonregulated electric utility. In the instance that there is  
6 more than one project seeking such consideration simulta-  
7 neously in connection with the same utility, such pro-  
8 ceeding may encompass all such projects, provided that  
9 full attention is paid to their individual circumstances and  
10 merits, and an individual judgment is reached with respect  
11 to each project.

12       “(f) IMPLEMENTATION.—(1) The State regulatory  
13 authority (with respect to each electric utility for which  
14 it has ratemaking authority) or nonregulated electric util-  
15 ity may, to the extent consistent with otherwise applicable  
16 State law—

17               “(A) implement the standard determined under  
18 this section, or

19               “(B) decline to implement any such standard.

20       “(2) If a State regulatory authority (with respect to  
21 each electric utility for which it has ratemaking authority)  
22 or nonregulated electric utility declines to implement any  
23 standard established by this section, such authority or  
24 nonregulated electric utility shall state in writing the rea-  
25 sons therefor. Such statement of reasons shall be available

1 to the public, and the Administrator shall include the  
2 project in an annual report to Congress concerning lost  
3 opportunities for waste-heat recovery, specifically identi-  
4 fying the utility and stating the amount of lost energy and  
5 emissions savings calculated. If a State regulatory author-  
6 ity (with respect to each electric utility for which it has  
7 ratemaking authority) or nonregulated electric utility de-  
8 clines to implement the standard established by this sec-  
9 tion, the project sponsor may submit a new petition under  
10 this section with respect to such project at any time after  
11 24 months after the date on which the State regulatory  
12 authority or nonregulated utility has declined to imple-  
13 ment such standard.

14 **“SEC. 376. CLEAN ENERGY APPLICATION CENTERS.**

15       “(a) PURPOSE.—The purpose of this section is to re-  
16 name and provide for the continued operation of the  
17 United States Department of Energy’s Regional Com-  
18 bined Heat and Power (CHP) Application Centers.

19       “(b) FINDINGS.—The Congress finds the Depart-  
20 ment of Energy’s Regional Combined Heat and Power  
21 (CHP) Application Centers program has produced signifi-  
22 cant energy savings and climate change benefits and will  
23 continue to do so through the deployment of clean energy  
24 technologies such as Combined Heat and Power (CHP),

1 recycled waste energy and biomass energy systems, in the  
2 industrial and commercial energy markets.

3 “(c) RENAMING.—The Combined Heat and Power  
4 Application Centers at the Department of Energy are  
5 hereby be redesignated as Clean Energy Application Cen-  
6 ters. Any reference in any law, rule or regulation or publi-  
7 cation to the Combined Heat and Power Application Cen-  
8 ters shall be treated as a reference to the Clean Energy  
9 Application Centers.

10 “(d) RELOCATION.—In order to better coordinate ef-  
11 forts with the separate Industrial Assessment Centers and  
12 to assure that the energy efficiency and, when applicable,  
13 the renewable nature of deploying mature clean energy  
14 technology is fully accounted for, the Secretary of Energy  
15 shall relocate the administration of the Clean Energy Ap-  
16 plication Centers to the Office of Energy Efficiency and  
17 Renewable Energy within the Department of Energy. The  
18 Office of Electricity Delivery and Energy Reliability shall  
19 continue to perform work on the role of such technology  
20 in support of the grid and its reliability and security, and  
21 shall assist the Clean Energy Application Centers in their  
22 work with regard to the grid and with electric utilities.

23 “(e) GRANTS.—

24 “(1) IN GENERAL.—The Secretary of Energy  
25 shall make grants to universities, research centers,

1 and other appropriate institutions to assure the con-  
2 tinued operations and effectiveness of 8 Regional  
3 Clean Energy Application Centers in each of the fol-  
4 lowing regions (as designated for such purposes as  
5 of the date of the enactment of this section):

6 “(A) Gulf Coast.

7 “(B) Intermountain.

8 “(C) Mid-Atlantic.

9 “(D) Midwest.

10 “(E) Northeast.

11 “(F) Northwest.

12 “(G) Pacific.

13 “(H) Southeast.

14 “(2) ESTABLISHMENT OF GOALS AND COMPLI-  
15 ANCE.—In making grants under this section, the  
16 Secretary shall ensure that sufficient goals are es-  
17 tablished and met by each Center throughout the  
18 program duration concerning outreach and tech-  
19 nology deployment.

20 “(f) ACTIVITIES.—Each Clean Energy Application  
21 Center shall operate a program to encourage deployment  
22 of clean energy technologies through education and out-  
23 reach to building and industrial professionals, and to other  
24 individuals and organizations with an interest in efficient  
25 energy use. In addition, the Centers shall provide project

1 specific support to building and industrial professionals  
2 through assessments and advisory activities. Funds made  
3 available under this section may be used for the following  
4 activities:

5           “(1) Developing and distributing informational  
6 materials on clean energy technologies, including  
7 continuation of the eight existing Web sites.

8           “(2) Developing and conducting target market  
9 workshops, seminars, internet programs and other  
10 activities to educate end users, regulators, and  
11 stakeholders in a manner that leads to the deploy-  
12 ment of clean energy technologies.

13           “(3) Providing or coordinating onsite assess-  
14 ments for sites and enterprises that may consider  
15 deployment of clean energy technology.

16           “(4) Performing market research to identify  
17 high profile candidates for clean energy deployment.

18           “(5) Providing consulting support to sites con-  
19 sidering deployment of clean energy technologies.

20           “(6) Assisting organizations developing clean  
21 energy technologies to overcome barriers to deploy-  
22 ment.

23           “(7) Assisting companies and organizations  
24 with performance evaluations of any clean energy  
25 technology implemented.



1           (2) A variety of renewable energy resources  
2           could be tapped by governmental and institutional  
3           energy systems to meet energy requirements.

4           (3) Use of these renewable energy resources to  
5           meet energy requirements will reduce reliance on  
6           fossil fuels and the associated emissions of air pollu-  
7           tion and carbon dioxide.

8           (4) CHP is a highly efficient and environ-  
9           mentally beneficial means to generate electric energy  
10          and heat, and offers total efficiency much greater  
11          than conventional separate systems, where electric  
12          energy is generated at and transmitted long dis-  
13          tances from a centrally located generation facility,  
14          and onsite heating and cooling equipment is used to  
15          meet nonelectric energy requirements.

16          (5) Heat recovered in a CHP generation system  
17          can be used for space heating, domestic hot water,  
18          or process steam requirements, or can be converted  
19          to cooling energy to meet air conditioning require-  
20          ments.

21          (6) The increased efficiency of CHP results in  
22          reduction in emissions of air pollution and carbon di-  
23          oxide.

24          (7) District energy systems represent a key op-  
25          portunity for expanding implementation of CHP be-

1 cause district energy systems provide a means of de-  
2 livering thermal energy from CHP to a substantial  
3 base of end users.

4 (8) District energy systems help cut peak power  
5 demand and reduce power transmission and distribu-  
6 tion system constraints by meeting air conditioning  
7 demand through delivery of chilled water produced  
8 with CHP-generated heat or other energy sources,  
9 shifting power demand through thermal storage,  
10 and, with CHP, generating power near load centers.

11 (9) Evaluation and implementation of sustain-  
12 able energy infrastructure is a complex undertaking  
13 involving a variety of technical, economic, legal, and  
14 institutional issues and barriers, and technical as-  
15 sistance is often required to successfully navigate  
16 these barriers.

17 (10) The major constraint to significant expan-  
18 sion of sustainable energy infrastructure by institu-  
19 tional entities is a lack of capital funding for imple-  
20 mentation.

21 **SEC. 9073. DEFINITIONS.**

22 For purposes of this part—

23 (1) the term “CHP” means combined heat and  
24 power, or the generation of electric energy and heat  
25 in a single, integrated system;

1           (2) the term “district energy systems” means  
2 systems providing thermal energy to buildings and  
3 other energy consumers from one or more plants to  
4 individual buildings to provide space heating, air  
5 conditioning, domestic hot water, industrial process  
6 energy, and other end uses;

7           (3) the term “institutional entities” means local  
8 governments, public school districts, municipal utili-  
9 ties, State governments, Federal agencies, and other  
10 entities established by local, State, or Federal agen-  
11 cies to meet public purposes, and public or private  
12 colleges, universities, airports, and hospitals;

13           (4) the term “renewable thermal energy  
14 sources” means non-fossil-fuel energy sources, in-  
15 cluding biomass, geothermal, solar, natural sources  
16 of cooling such as cold lake or ocean water, and  
17 other sources that can provide heating or cooling en-  
18 ergy;

19           (5) the term “sustainable energy infrastruc-  
20 ture” means facilities for production of energy from  
21 CHP or renewable thermal energy sources and dis-  
22 tribution of thermal energy to users; and

23           (6) the term “thermal energy” means heating  
24 or cooling energy in the form of hot water or steam  
25 (heating energy) or chilled water (cooling energy).

1 **SEC. 9074. TECHNICAL ASSISTANCE PROGRAM.**

2 (a) ESTABLISHMENT.—The Secretary of Energy  
3 shall, with funds appropriated for this purpose, implement  
4 a program of information dissemination and technical as-  
5 sistance to institutional entities to assist them in identi-  
6 fying, evaluating, designing, and implementing sustainable  
7 energy infrastructure.

8 (b) INFORMATION DISSEMINATION.—The Secretary  
9 shall develop and disseminate information and assessment  
10 tools addressing—

11 (1) identification of opportunities for sustain-  
12 able energy infrastructure;

13 (2) technical and economic characteristics of  
14 sustainable energy infrastructure;

15 (3) utility interconnection, and negotiation of  
16 power and fuel contracts;

17 (4) financing alternatives;

18 (5) permitting and siting issues;

19 (6) case studies of successful sustainable energy  
20 infrastructure systems; and

21 (7) computer software for assessment, design,  
22 and operation and maintenance of sustainable en-  
23 ergy infrastructure systems.

24 (c) ELIGIBLE COSTS.—Upon application by an insti-  
25 tutional entity, the Secretary may make grants to such  
26 applicant to fund—

1           (1) 75 percent of the cost of feasibility studies  
2           to assess the potential for implementation or im-  
3           provement of sustainable energy infrastructure;

4           (2) 60 percent of the cost of guidance on over-  
5           coming barriers to project implementation, including  
6           financial, contracting, siting, and permitting bar-  
7           riers; and

8           (3) 45 percent of the cost of detailed engineer-  
9           ing and design of sustainable energy infrastructure.

10          (d) AUTHORIZATION OF APPROPRIATIONS.—There  
11          are authorized to be appropriated to carry out this section  
12          \$15,000,000 for fiscal year 2008, \$15,000,000 for fiscal  
13          year 2009, and \$15,000,000 for fiscal year 2010.

14          **SEC. 9075. REVOLVING FUND.**

15          (a) ESTABLISHMENT.—The Secretary of Energy  
16          shall, with funds appropriated for this purpose, create a  
17          Sustainable Institutions Revolving Fund for the purpose  
18          of establishing and operating a Sustainable Institutions  
19          Revolving Fund (in this section referred to as the  
20          “SIRF”) for the purpose of providing loans for the con-  
21          struction or improvement of sustainable energy infrastruc-  
22          ture to serve institutional entities.

23          (b) ELIGIBLE COSTS.—A loan provided from the  
24          SIRF shall be for no more than 70 percent of the total  
25          capital costs of a project, and shall not exceed

1 \$15,000,000. Such loans shall be for constructing sustain-  
2 able energy infrastructure, including—

3 (1) plant facilities used for producing thermal  
4 energy, electricity, or both;

5 (2) facilities for storing thermal energy;

6 (3) facilities for distribution of thermal energy;

7 and

8 (4) costs for converting buildings to use ther-  
9 mal energy from sustainable energy sources.

10 (c) QUALIFICATIONS.—Loans from the SIRF may be  
11 made to institutional entities for projects meeting the  
12 qualifications and conditions established by the Secretary,  
13 including the following minimum qualifications:

14 (1) The project shall be technically and eco-  
15 nomically feasible as determined by a detailed feasi-  
16 bility analysis performed or corroborated by an inde-  
17 pendent consultant.

18 (2) The borrower shall demonstrate that ade-  
19 quate and comparable financing was not found to be  
20 reasonably available from other sources, and that  
21 the project is economically more feasible with the  
22 availability of the SIRF loan.

23 (3) The borrower shall obtain commitments for  
24 the remaining capital required to implement the  
25 project, contingent on approval of the SIRF loan.

1           (4) The borrower shall provide to the Secretary  
2           reasonable assurance that all laborers and mechanics  
3           employed by contractors or subcontractors in the  
4           performance of construction work financed in whole  
5           or in part with a loan provided under this section  
6           will be paid wages at rates not less than those pre-  
7           vailing on similar work in the locality as determined  
8           by the Secretary of Labor in accordance with sub-  
9           chapter IV of chapter 31 of title 40, United States  
10          Code (commonly referred to as the Davis-Bacon  
11          Act).

12          (d) FINANCING TERMS.—(1) Interest on a loan under  
13          this section may be a fixed rate or floating rate, and shall  
14          be equal to the Federal cost of funds consistent with the  
15          loan type and term, minus 1.5 percent.

16          (2) Interest shall accrue from the date of the loan,  
17          but the first payment of interest shall be deferred, if de-  
18          sired by the borrower, for a period ending not later than  
19          3 years after the initial date of operation of the system.

20          (3) Interest attributable to the period of deferred  
21          payment shall be amortized over the remainder of the loan  
22          term.

23          (4) Principal shall be repaid on a schedule established  
24          at the time the loan is made. Such payments shall begin

1 not later than 3 years after the initial date of operation  
2 of the system.

3 (5) Loans made from the SIRF shall be repayable  
4 over a period ending not more than 20 years after the  
5 date the loan is made.

6 (6) Loans shall be prepayable at any time without  
7 penalty.

8 (7) SIRF loans shall be subordinate to other loans  
9 for the project.

10 (e) FUNDING CYCLES.—Applications for loans from  
11 the SIRF shall be received on a periodic basis at least  
12 semiannually.

13 (f) APPLICATION OF REPAYMENTS FOR DEFICIT RE-  
14 DUCTION.—Loans from the SIRF shall be made, with  
15 funds available for this purpose, during the 10 years start-  
16 ing from the date that the first loan from the fund is  
17 made. Until this 10-year period ends, funds repaid by bor-  
18 rowers shall be deposited in the SIRF to be made available  
19 for additional loans. Once loans from the SIRF are no  
20 longer being made, repayments shall go directly into the  
21 United States Treasury.

22 (g) PRIORITIES.—In evaluating projects for funding,  
23 priority shall be given to projects which—

24 (1) maximize energy efficiency;



1 “\$125,000,000 for each of the fiscal years 2007, 2008,  
2 2009, 2010, 2011, and 2012”.

3 **PART 7—ENERGY SAVINGS PERFORMANCE**

4 **CONTRACTING**

5 **SEC. 9081. DEFINITION OF ENERGY SAVINGS.**

6 Section 804(2) of the National Energy Conservation  
7 Policy Act (42 U.S.C. 8287c(2)) is amended—

8 (1) by redesignating subparagraphs (A), (B),  
9 and (C) as clauses (i), (ii), and (iii), respectively,  
10 and indenting appropriately;

11 (2) by striking “means a reduction” and insert-  
12 ing “means—

13 “(A) a reduction”;

14 (3) by striking the period at the end and insert-  
15 ing a semicolon; and

16 (4) by adding at the end the following:

17 “(B) the increased efficient use of an exist-  
18 ing energy source by cogeneration or heat re-  
19 covery, and installation of renewable energy sys-  
20 tems;

21 “(C) if otherwise authorized by Federal or  
22 State law (including regulations), the sale or  
23 transfer of electrical or thermal energy gen-  
24 erated onsite but in excess of Federal needs, to  
25 utilities or non-Federal energy users; and

1           “(D) the increased efficient use of existing  
2           water sources in interior or exterior applica-  
3           tions.”.

4 **SEC. 9082. FINANCING FLEXIBILITY.**

5           Section 801(a)(2) of the National Energy Conserva-  
6           tion Policy Act (42 U.S.C. 8287(a)(2)) is amended by add-  
7           ing at the end the following:

8           “(E) SEPARATE CONTRACTS.—In carrying out a con-  
9           tract under this title, a Federal agency may—

10           “(i) enter into a separate contract for energy  
11           services and conservation measures under the con-  
12           tract; and

13           “(ii) provide all or part of the financing nec-  
14           essary to carry out the contract.”.

15 **SEC. 9083. AUTHORITY TO ENTER INTO CONTRACTS; RE-**  
16 **PORTS.**

17           (a) AUTHORITY TO ENTER INTO CONTRACTS.—Sec-  
18           tion 801(a)(2)(D) of the National Energy Conservation  
19           Policy Act (42 U.S.C. 8287(a)(2)(D)) is amended—

20           (1) in clause (ii), by inserting “and” after the  
21           semicolon at the end;

22           (2) by striking clause (iii); and

23           (3) by redesignating clause (iv) as clause (iii).

24           (b) REPORTS.—Section 548(a)(2) of the National  
25           Energy Conservation Policy Act (42 U.S.C. 8258(a)(2))

1 is amended by inserting “and any termination penalty ex-  
2 posure” after “the energy and cost savings that have re-  
3 sulted from such contracts”.

4 (c) CONFORMING AMENDMENT.—Section 2913 of  
5 title 10, United States Code is amended by striking sub-  
6 section (e).

7 **SEC. 9084. PERMANENT REAUTHORIZATION.**

8 Section 801 of the National Energy Conservation  
9 Policy Act (42 U.S.C. 8287) is amended by striking sub-  
10 section (c).

11 **SEC. 9085. TRAINING FEDERAL CONTRACTING OFFICERS**  
12 **TO NEGOTIATE ENERGY EFFICIENCY CON-**  
13 **TRACTS.**

14 (a) PROGRAM.—The Secretary of Energy shall create  
15 and administer in the Federal Energy Management Pro-  
16 gram a training program to educate Federal contract ne-  
17 gotiation and contract management personnel so that such  
18 contract officers are prepared to—

19 (1) negotiate energy savings performance con-  
20 tracts;

21 (2) conclude effective and timely contracts for  
22 energy efficiency services with all companies offering  
23 energy efficiency services; and

1           (3) review Federal contracts for all products  
2           and services for their potential energy efficiency op-  
3           portunities and implications.

4           (b) SCHEDULE.—The Federal Energy Management  
5 Program shall plan, staff, announce, and begin such train-  
6 ing not later than one year after the date of enactment  
7 of this Act.

8           (c) PERSONNEL TO BE TRAINED.—Personnel appro-  
9 priate to receive such training shall be selected by and sent  
10 for such training from—

11           (1) the Department of Defense;

12           (2) the Department of Veterans Affairs;

13           (3) the Department of Energy;

14           (4) the General Services Administration;

15           (5) the Department of Housing and Urban De-  
16 velopment;

17           (6) the United States Postal Service; and

18           (7) all other Federal agencies and departments  
19 that enter contracts for buildings, building services,  
20 electricity and electricity services, natural gas and  
21 natural gas services, heating and air conditioning  
22 services, building fuel purchases, and other types of  
23 procurement or service contracts determined by Fed-  
24 eral Energy Management Program to offer the po-  
25 tential for energy savings and greenhouse gas emis-

1 sion reductions if negotiated with such goals in  
2 mind.

3 (d) TRAINERS.—Such training may be conducted by  
4 attorneys or contract officers with experience in negoti-  
5 ating and managing such contracts from any agency, and  
6 the Department of Energy shall reimburse their related  
7 salaries and expenses from amounts appropriated for car-  
8 rying out this section to the extent they are not already  
9 employees of the Department of Energy. Such training  
10 may also be provided by private experts hired by the De-  
11 partment of Energy for the purposes of this section, except  
12 that the Department may not hire experts who are simul-  
13 taneously employed by any company under contract to  
14 provide such energy efficiency services to the Federal Gov-  
15 ernment.

16 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
17 are authorized to be appropriated to the Secretary of En-  
18 ergy for carrying out this section \$750,000 for each of  
19 fiscal years 2008 through 2012.

20 **SEC. 9086. PROMOTING LONG-TERM ENERGY SAVINGS PER-**  
21 **FORMANCE CONTRACTS AND VERIFYING SAV-**  
22 **INGS.**

23 Section 801(a)(2) of the National Energy Conserva-  
24 tion Policy Act (42 U.S.C. 8287(a)(2)) is amended—

1           (1) in subparagraph (D), by inserting “begin-  
2           ning on the date of the delivery order” after “25  
3           years”; and

4           (2) by adding at the end the following:

5           “(F) PROMOTION OF CONTRACTS.—In carrying out  
6 this section, a Federal agency shall not—

7           “(i) establish a Federal agency policy that lim-  
8           its the maximum contract term under subparagraph  
9           (D) to a period shorter than 25 years; or

10           “(ii) limit the total amount of obligations under  
11           energy savings performance contracts or other pri-  
12           vate financing of energy savings measures.

13           “(G) MEASUREMENT AND VERIFICATION REQUIRE-  
14           MENTS FOR PRIVATE FINANCING.—

15           “(i) IN GENERAL.—The evaluations and savings  
16           measurement and verification required under para-  
17           graphs (1) and (3) of section 543(f) shall be used  
18           by a Federal agency to meet the requirements for—

19           “(I) in the case of energy savings perform-  
20           ance contracts, the need for energy audits, cal-  
21           culation of energy savings, and any other eval-  
22           uation of costs and savings needed to imple-  
23           ment the guarantee of savings under this sec-  
24           tion; and

1           “(II) in the case of utility energy service  
2           contracts, needs that are similar to the pur-  
3           poses described in subclause (I).

4           “(ii) MODIFICATION OF EXISTING CON-  
5           TRACTS.—Not later than 180 days after the date of  
6           enactment of this subparagraph, each Federal agen-  
7           cy shall, to the maximum extent practicable, modify  
8           any indefinite delivery and indefinite quantity energy  
9           savings performance contracts, and other indefinite  
10          delivery and indefinite quantity contracts using pri-  
11          vate financing, to conform to the amendments made  
12          by subtitle G of title I of the Energy Efficiency Im-  
13          provement Act of 2007.”.

14       **PART 8—ADVISORY COMMITTEE ON ENERGY**  
15                           **EFFICIENCY FINANCING**

16       **SEC. 9089. ADVISORY COMMITTEE.**

17          (a) ESTABLISHMENT.—The Assistant Secretary of  
18          Energy for Energy Efficiency and Renewable Energy shall  
19          establish an advisory committee to provide advice and rec-  
20          ommendations to the Department of Energy on energy ef-  
21          ficiency finance and investment issues, options, ideas, and  
22          trends, and to assist the energy community in identifying  
23          practical ways of lowering costs and increasing invest-  
24          ments in energy efficiency technologies.

1 (b) MEMBERSHIP.—The advisory committee estab-  
2 lished under this section shall have a balanced membership  
3 that shall include members representing the following  
4 communities:

5 (1) Providers of seed capital.

6 (2) Venture capitalists.

7 (3) Private equity sources.

8 (4) Investment banking corporate finance.

9 (5) Investment banking mergers and acquisi-  
10 tions.

11 (6) Equity capital markets.

12 (7) Debt capital markets.

13 (8) Research analysts.

14 (9) Sales and trading.

15 (10) Commercial lenders.

16 (11) Residential lenders.

17 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated such sums as may be  
19 necessary to the Secretary of Energy for carrying out this  
20 section.

21 **PART 9—ENERGY EFFICIENCY BLOCK GRANT**

22 **PROGRAM**

23 **SEC. 9091. DEFINITIONS.**

24 For purposes of this part—

1 (1) the term “eligible entity” means a State or  
2 an eligible unit of local government within a State;

3 (2) the term “eligible unit of local government”  
4 means—

5 (A) a city with a population of at least  
6 50,000; and

7 (B) a county with a population of at least  
8 200,000;

9 (3) the term “Secretary” means the Secretary  
10 of Energy; and

11 (4) the term “State” means one of the 50  
12 States, the District of Columbia, the Commonwealth  
13 of Puerto Rico, Guam, American Samoa, the United  
14 States Virgin Islands, the Commonwealth of the  
15 Northern Mariana Islands, and any other common-  
16 wealth, territory, or possession of the United States.

17 **SEC. 9092. ESTABLISHMENT OF PROGRAM.**

18 The Secretary shall establish an Energy Efficiency  
19 Block Grant Program to make block grants to eligible en-  
20 tities as provided in this part.

21 **SEC. 9093. ALLOCATIONS.**

22 (a) IN GENERAL.—Of the funds appropriated for  
23 making grants under this part for each fiscal year, the  
24 Secretary shall allocate 70 percent to be provided to eligi-  
25 ble units of local government as provided in subsection (b)

1 and 30 percent to be provided to States as provided in  
2 subsection (e).

3 (b) ELIGIBLE UNITS OF LOCAL GOVERNMENT.—The  
4 Secretary shall provide grants to eligible units of local gov-  
5 ernment according to a formula giving equal weight to—

6 (1) population, according to the most recent  
7 available Census data; and

8 (2) daytime population, or another similar fac-  
9 tor such as square footage of commercial, office, and  
10 industrial space, as determined by the Secretary.

11 (c) STATES.—The Secretary shall provide grants to  
12 States according to a formula based on population, accord-  
13 ing to the most recent available Census data.

14 (d) PUBLICATION OF ALLOCATION FORMULAS.—Not  
15 later than 90 days before the beginning of any fiscal year  
16 in which grants are to made under this part, the Secretary  
17 shall publish in the Federal Register the formulas for allo-  
18 cation described in subsection (b)(1) and (b)(2).

19 **SEC. 9094. ELIGIBLE ACTIVITIES.**

20 Funds provided through a grant under this part may  
21 be used for the following activities:

22 (1) Development and implementation of an En-  
23 ergy Efficiency Strategy under section 9095.

1           (2) Retaining technical consultant services to  
2 assist an eligible entity in the development of such  
3 Strategy, including—

4           (A) formulation of energy efficiency, en-  
5 ergy conservation, and energy usage goals;

6           (B) identification of strategies to meet  
7 such goals through efforts to increase energy ef-  
8 ficiency and reduce energy consumption;

9           (C) identification of strategies to encour-  
10 age behavioral changes among the populace  
11 that will help achieve such goals;

12           (D) development of methods to measure  
13 progress in achieving such goals;

14           (E) development and preparation of annual  
15 reports to the citizenry of the eligible entity's  
16 energy efficiency strategies and goals, and  
17 progress in achieving them; and

18           (F) other services to assist in the imple-  
19 mentation of the Energy Efficiency Strategy.

20           (3) Conducting energy audits.

21           (4) Development and implementation of weath-  
22 erization programs.

23           (5) Creation of financial incentive programs for  
24 energy efficiency retrofits, including zero-interest or  
25 low-interest revolving loan funds.

1           (6) Grants to nonprofit organizations and gov-  
2           ernmental agencies for energy retrofits.

3           (7) Development and implementation of energy  
4           efficiency programs and technologies for buildings  
5           and facilities of nonprofit organizations and govern-  
6           mental agencies.

7           (8) Development and implementation of build-  
8           ing and home energy conservation programs, includ-  
9           ing—

10                   (A) design and operation of the programs;

11                   (B) identifying the most effective methods  
12           for achieving maximum participation and effi-  
13           ciency rates;

14                   (C) public education;

15                   (D) measurement protocols; and

16                   (E) identification of energy efficient tech-  
17           nologies.

18           (9) Development and implementation of energy  
19           conservation programs, including—

20                   (A) use of flex time by employers;

21                   (B) satellite work centers; and

22                   (C) other measures that have the effect of  
23           increasing energy efficiency and decreasing en-  
24           ergy consumption.

1           (10) Development and implementation of build-  
2           ing codes and inspection services for public, commer-  
3           cial, industrial, and single and multifamily residen-  
4           tial buildings to promote energy efficiency.

5           (11) Application and implementation of alter-  
6           native energy and energy distribution technologies  
7           that significantly increase energy efficiency and pro-  
8           mote distributed resources and district heating and  
9           cooling systems.

10          (12) Development and promotion of zoning  
11          guidelines or requirements that result in increased  
12          energy efficiency, efficient development, active living  
13          land use planning, and infrastructure such as bike  
14          lanes and pathways, and pedestrian walkways.

15          (13) Promotion of greater participation and ef-  
16          ficiency rates for material conservation programs, in-  
17          cluding source reduction, recycling, and recycled  
18          content procurement programs that lead to increases  
19          in energy efficiency.

20          (14) Establishment of a State, county, or city  
21          office to assist in the development and implementa-  
22          tion of the Energy Efficiency Strategy.

23 **SEC. 9095. REQUIREMENTS.**

24          (a) REQUIREMENTS FOR ELIGIBLE UNITS OF LOCAL  
25          GOVERNMENT.—

1           (1) PROPOSED STRATEGY.—Not later than 1  
2           year after being awarded a grant under this part, an  
3           eligible unit of local government shall submit to the  
4           Secretary a proposed Energy Efficiency Strategy  
5           which establishes goals for increased energy effi-  
6           ciency in the jurisdiction of the eligible units of local  
7           government. The Strategy shall include plans for the  
8           use of funds received under the grant to assist the  
9           eligible unit of local government in the achievement  
10          of such goals, consistent with section 9094. In devel-  
11          oping such a Strategy, an eligible unit of local gov-  
12          ernment shall take into account any plans for the  
13          use of funds by adjoining eligible units of local gov-  
14          ernments funded under this part.

15          (2) APPROVAL.—The Secretary shall approve or  
16          disapprove a proposed Strategy submitted under  
17          paragraph (1) not later than 90 days after receiving  
18          it. If the Secretary disapproves a proposed Strategy,  
19          the Secretary shall provide to the eligible unit of  
20          local government the reasons for such disapproval.  
21          The eligible unit of local government may revise and  
22          resubmit the Strategy, as many times as required,  
23          until approval is granted.

24          (3) FUNDING FOR PREPARATION OF STRAT-  
25          EGY.—

1 (A) IN GENERAL.—Until the Secretary has  
2 approved a proposed Energy Efficiency Strat-  
3 egy under paragraph (2), the Secretary shall  
4 only disburse to an eligible unit of local govern-  
5 ment \$200,000 or 20 percent of the grant,  
6 whichever is greater, which may be used only  
7 for preparation of the Strategy.

8 (B) REMAINDER OF FUNDS.—The remain-  
9 der of an eligible unit of local government’s  
10 grant funds awarded but not disbursed under  
11 subparagraph (A) shall remain available and  
12 shall be disbursed by the Secretary upon ap-  
13 proval of the Strategy.

14 (4) LIMITATIONS ON USE OF FUNDS.—Of the  
15 amounts provided through a grant under this part,  
16 an eligible unit of local government may use—

17 (A) not more than 10 percent, or \$75,000,  
18 whichever is greater, for administrative ex-  
19 penses, not including expenses needed to meet  
20 reporting requirements under this part;

21 (B) not more than 20 percent, or  
22 \$250,000, whichever is greater, for the estab-  
23 lishment of revolving loan funds; and

24 (C) not more than 20 percent, or  
25 \$250,000, whichever is greater, for subgranting

1 to nongovernmental organizations for the pur-  
2 pose of assisting in the implementation of the  
3 Energy Efficiency Strategy.

4 (5) ANNUAL REPORT.—Not later than 2 years  
5 after receipt of the first disbursement of funds from  
6 a grant awarded under this part, and annually  
7 thereafter, an eligible unit of local government shall  
8 submit a report to the Secretary on the status of the  
9 Strategy’s development and implementation, and,  
10 where practicable, a best available assessment of en-  
11 ergy efficiency gains within the jurisdiction of the el-  
12 igible unit of local government.

13 (b) REQUIREMENTS FOR STATES.—

14 (1) ALLOCATION OF GRANT FUNDS.—A State  
15 receiving a grant under this part shall use at least  
16 70 percent of the funds received to provide sub-  
17 grants to units of local government in the State that  
18 are not eligible units of local government. The State  
19 shall make such subgrant awards not later than 6  
20 months after approval of the State’s Strategy under  
21 paragraph (3).

22 (2) PROPOSED STRATEGY.—Not later than 120  
23 days the date of enactment of this Act, each State  
24 shall submit to the Secretary a proposed Energy Ef-  
25 ficiency Strategy which establishes a process for

1 making subgrants described in paragraph (1), and  
2 establishes goals for increased energy efficiency in  
3 the jurisdiction of the State. The Strategy shall in-  
4 clude plans for the use of funds received under a  
5 grant under this part to assist the State in the  
6 achievement of such goals, consistent with section  
7 9094.

8 (3) APPROVAL.—The Secretary shall approve or  
9 disapprove a proposed Strategy submitted under  
10 paragraph (2) not later than 90 days after receiving  
11 it. If the Secretary disapproves a proposed Strategy,  
12 the Secretary shall provide to the State the reasons  
13 for such disapproval. The State may revise and re-  
14 submit the Strategy, as many times as required,  
15 until approval is granted.

16 (4) FUNDING FOR PREPARATION OF STRAT-  
17 EGY.—

18 (A) IN GENERAL.—Until the Secretary has  
19 approved a proposed Energy Efficiency Strat-  
20 egy under paragraph (2), the Secretary shall  
21 only disburse to a State \$200,000 or 20 percent  
22 of the grant, whichever is greater, which may  
23 be used only for preparation of the Strategy.

24 (B) REMAINDER OF FUNDS.—The remain-  
25 der of a State's grant funds awarded but not

1           disbursed under subparagraph (A) shall remain  
2           available and shall be disbursed by the Sec-  
3           retary upon approval of the Strategy.

4           (5) LIMITATIONS ON USE OF FUNDS.—Of the  
5           amounts provided through a grant under this part,  
6           a State may use not more than 10 percent for ad-  
7           ministrative expenses.

8           (6) ANNUAL REPORTS.—A State shall annually  
9           report to the Secretary on the development and im-  
10          plementation of its Strategy. Each such report shall  
11          include—

12                   (A) a status report on the State’s subgrant  
13                   program described in paragraph (1);

14                   (B) a best available assessment of energy  
15                   efficiency gains achieved through the State’s  
16                   Strategy; and

17                   (C) specific energy efficiency and energy  
18                   conservation goals for future years.

19          (c) STATE AND LOCAL ADVISORY COMMITTEE.—

20                   (1) STATE AND LOCAL ADVISORY COM-  
21                   MITTEE.—The Secretary shall establish a State and  
22                   Local Advisory Committee to provide advice regard-  
23                   ing the administration, direction, and evaluation of  
24                   the program under this part.

1 **SEC. 9096. REVIEW AND EVALUATION.**

2 The Secretary may review and evaluate the perform-  
3 ance of grant recipients, including by performing audits,  
4 and may deny funding to such grant recipients for failure  
5 to properly adhere to—

6 (1) the Secretary's guidelines and regulations  
7 relating to the program under this part, including  
8 the misuse or misappropriation of funds; or

9 (2) the grant recipient's Strategy.

10 **SEC. 9097. TECHNICAL ASSISTANCE AND EDUCATION PRO-**  
11 **GRAM.**

12 (a) **ESTABLISHMENT.**—The Secretary shall establish  
13 and carry out a technical assistance and education pro-  
14 gram to provide—

15 (1) technical assistance to State and local gov-  
16 ernments;

17 (2) public education programs;

18 (3) demonstration of innovative energy effi-  
19 ciency systems and practices; and

20 (4) identification of effective measurement  
21 methodologies and methods for changing or influ-  
22 encing public participation in, and awareness of, en-  
23 ergy efficiency programs.

24 (b) **ELIGIBLE RECIPIENTS.**—Eligible recipients of as-  
25 sistance under this section shall include State and local  
26 governments, State and local government associations,

1 public and private nonprofit organizations, and colleges  
2 and universities.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are authorized to be appropriated to the Secretary for car-  
5 rying out this section \$150,000,000 for each of the fiscal  
6 years 2008 through 2012.

7 **SEC. 9098. AUTHORIZATION OF APPROPRIATIONS.**

8 (a) GRANTS.—There are authorized to be appro-  
9 priated to the Secretary for grants under this part,  
10 \$2,000,000,000 for each of fiscal years 2008 through  
11 2012.

12 (b) ADMINISTRATION.—There are authorized to be  
13 appropriated to the Secretary for administrative expenses  
14 of the program established under this part—

15 (1) \$20,000,000 for fiscal year 2008;

16 (2) \$20,000,000 for fiscal year 2009;

17 (3) \$25,000,000 for fiscal year 2010;

18 (4) \$25,000,000 for fiscal year 2011; and

19 (5) \$30,000,000 for fiscal year 2012.

20 **Subtitle B—Smart Grid Facilitation**

21 **SEC. 9101. SHORT TITLE.**

22 This subtitle may be cited as the “Smart Grid Facili-  
23 tation Act of 2007”.

**PART 1—SMART GRID****SEC. 9111. STATEMENT OF POLICY ON MODERNIZATION OF  
ELECTRICITY GRID.**

(a) SMART GRID CHARACTERISTICS.—It is the policy of the United States to support the modernization of the Nation’s electricity transmission and distribution system to incorporate digital information and controls technology and to share real-time pricing information with electricity customers to achieve each of the following, which together characterize a smart grid:

(1) Increased reliability, security and efficiency of the electric grid.

(2) Dynamic optimization of grid operations and resources, with full cyber-security.

(3) Deployment and integration of distributed resources and generation.

(4) Development and incorporation of demand response demand-side resources, and energy efficiency resources.

(5) Deployment of “smart” technologies for metering, communications concerning grid operations and status, and distribution automation.

(6) Integration of “smart” appliances and consumer devices.

1           (7) Deployment and integration of renewable  
2 energy resources, both to the grid and on the cus-  
3 tomer side of the electric meter.

4           (8) Deployment and integration of advanced  
5 electricity storage and peak-sharing technologies, in-  
6 cluding plug-in electric and hybrid electric vehicles,  
7 and thermal-storage air conditioning.

8           (9) Provision to consumers of new information  
9 and control options.

10          (10) Continual environmental improvement in  
11 electricity production and distribution.

12          (11) Enhanced capacity and efficiency of elec-  
13 tricity networks, reduction of line losses, and main-  
14 tenance of power quality.

15          (b) SUPPORT.—The Secretary of Energy and the  
16 Federal Energy Regulatory Commission and other Federal  
17 agencies as appropriate shall undertake programs to sup-  
18 port the development and demonstration of Smart Grid  
19 technologies and standards to maximize the achievement  
20 of these goals.

21          (c) BARRIERS.—It is further the policy of the United  
22 States that no State, State agency, or local government  
23 or instrumentality thereof should prohibit, or erect unrea-  
24 sonable barriers to, the deployment of smart grid tech-  
25 nologies on an electric utility's distribution facilities, or

1 unreasonably limit the services that may be provided using  
2 such technologies.

3 (d) INFORMATION.—It is further the policy of the  
4 United States that electricity purchasers are entitled to  
5 receive information about the varying value of electricity  
6 at different times and places, and that States shall not  
7 prohibit nor erect unreasonable barriers to the provision  
8 of such information flows to end users.

9 **SEC. 9112. GRID MODERNIZATION COMMISSION.**

10 (a) ESTABLISHMENT AND MISSION.—

11 (1) ESTABLISHMENT.—The President shall es-  
12 tablish a Grid Modernization Commission composed  
13 of 9 members. Three members of the Commission  
14 shall be appointed by the President, and one each  
15 shall be appointed by the Speaker and Minority  
16 Leader of the United States House of Representa-  
17 tives and by the Majority Leader and Minority  
18 Leader of the United States Senate. Two members  
19 shall be appointed by the President from among per-  
20 sons recommended by an association representing  
21 State utility regulatory commissioners. The Presi-  
22 dent shall designate one Commissioner to serve as  
23 Chairperson.

24 (2) MISSION.—The mission of the Grid Mod-  
25 ernization Commission shall be to facilitate the

1 adoption of Smart Grid standards, technologies, and  
2 practices across the Nation's electricity grid to the  
3 point of general adoption and ongoing market sup-  
4 port in the United States electric sector. The Com-  
5 mission shall be responsible for monitoring develop-  
6 ments, encouraging progress toward common stand-  
7 ards and protocols, identifying barriers and pro-  
8 posing solutions, coordinating with all Federal de-  
9 partments and agencies, and coordinating ap-  
10 proaches on smart grid implementation with States  
11 and local governmental authorities.

12 (b) MEMBERSHIP.—The members appointed to the  
13 Commission shall, collectively, have qualifications in elec-  
14 tric utility operations and infrastructure, digital informa-  
15 tion and control technologies, security, market develop-  
16 ment, finance and utility regulation, energy efficiency, de-  
17 mand response, renewable energy, and consumer protec-  
18 tion.

19 (c) AUTHORITIES TO INTERVENE.—The Commission  
20 shall have the authority to intervene and represent itself  
21 before the Federal Energy Regulatory Commission and  
22 other Federal and State agencies as it deems necessary  
23 to accomplish its mission.

24 (d) TERMS OF OFFICE.—The term of office of each  
25 Commissioner shall be 5 years, and any member may be

1 reappointed for not more than one additional term of 5  
2 years.

3 (e) TERMINATION.—Unless extended by Act of Con-  
4 gress, the Commission shall complete its work and cease  
5 its activities by January 1, 2020, or on such earlier date  
6 that the Commission determines that the proliferation,  
7 evolution, and adaptation of Smart Grid technologies no  
8 longer require Federal leadership and assistance.

9 (f) COMPENSATION OF MEMBERS.—Each member of  
10 the Commission who is not an officer or employee of the  
11 Federal Government shall be compensated at a rate equal  
12 to the daily equivalent of the annual rate of basic pay pre-  
13 scribed for level III of the Executive Schedule under sec-  
14 tion 5315 of title 5, United States Code, for each day (in-  
15 cluding travel time) during which such member is engaged  
16 in the performance of the duties of the Commission. All  
17 members of the Commission who are officers or employees  
18 of the United States shall serve without compensation in  
19 addition to that received for their services as officers or  
20 employees of the United States.

21 (g) TRAVEL EXPENSES.—The members of the Com-  
22 mission shall be allowed travel expenses, including per  
23 diem in lieu of subsistence, at rates authorized for employ-  
24 ees of agencies under subchapter I of chapter 57 of title  
25 5, United States Code, while away from their homes or

1 regular places of business in the performance of services  
2 for the Commission.

3 (h) MEETINGS.—The Commission shall meet at the  
4 call of the Chairman. Commission meetings shall be open  
5 to the public, but as many as three Commissioners may  
6 meet in private without constituting a meeting requiring  
7 public access.

8 (i) APPLICABILITY OF FEDERAL ADVISORY COM-  
9 MITTEE ACT.—The Federal Advisory Committee Act (5  
10 U.S.C. App. 1 et seq.) shall not apply to the Commission.

11 (j) OFFICES AND STAFF.—The Secretary of Energy  
12 shall provide the Commission with offices in the Depart-  
13 ment of Energy and shall make available to the Commis-  
14 sion the expertise and staff resources of both the Office  
15 of Electricity Delivery and Energy Reliability and the Of-  
16 fice of Energy Efficiency and Renewable Energy.

17 (k) DETAIL OF GOVERNMENT EMPLOYEES.—Any  
18 Federal Government employee may be detailed to the  
19 Commission without reimbursement, and such detail shall  
20 be without interruption or loss of civil service status or  
21 privilege.

22 (l) EXECUTIVE DIRECTOR.—The Secretary of En-  
23 ergy shall appoint an officer of the Senior Executive Serv-  
24 ice to serve as Executive Director to the Commission.

1 (m) PROCUREMENT OF TEMPORARY AND INTERMIT-  
2 TENT SERVICES.—The Chairman of the Commission may  
3 procure temporary and intermittent services under section  
4 3109(b) of title 5, United States Code, at rates for individ-  
5 uals which do not exceed the daily equivalent of the annual  
6 rate of basic pay prescribed for level V of the Executive  
7 Schedule under section 5316 of such title.

8 (n) INFORMATION FROM FEDERAL AGENCIES.—The  
9 Commission may secure directly from any Federal depart-  
10 ment or agency such information as the Commission con-  
11 siders necessary to carry out this part. Upon request of  
12 the Chairman of the Commission, the head of such depart-  
13 ment or agency shall furnish such information to the Com-  
14 mission. The Commission shall maintain the same level of  
15 confidentiality for such information made available under  
16 this subsection as is required of the head of the depart-  
17 ment or agency from which the information was obtained.

18 (o) POSTAL SERVICES.—The Commission may use  
19 the United States mails in the same manner and under  
20 the same conditions as other departments and agencies of  
21 the Federal Government.

22 **SEC. 9113. GRID ASSESSMENT AND REPORT.**

23 (a) IN GENERAL.—The Grid Modernization Commis-  
24 sion shall undertake, and update on a biannual basis, an  
25 assessment of the progress toward modernizing the elec-

1 tric system from generation to ultimate electricity con-  
2 sumption, including implementation of “smart grid” tech-  
3 nologies. The Commission shall prepare this assessment  
4 with input from stakeholders including but not limited to  
5 electric utilities, other Federal offices, States, companies  
6 involved in developing related technologies, the National  
7 Electric Reliability Organization recognized by the Federal  
8 Energy Regulatory Commission, electricity customers, and  
9 persons with special related expertise. The assessment  
10 shall include each of the following:

11           (1) An updated inventory of existing smart grid  
12           systems.

13           (2) A description of the condition of existing  
14           grid infrastructure and procedures for determining  
15           the need for new infrastructure;

16           (3) A description of any plans of States, utili-  
17           ties, or others to introduce smart grid systems and  
18           technologies.

19           (4) An assessment of constraints to deployment  
20           of smart grid technology and most important oppor-  
21           tunities for doing so, including the readiness or lack  
22           thereof of enabling technologies.

23           (5) An assessment of remaining potential bene-  
24           fits resulting from introduction of smart grid sys-  
25           tems, including benefits related to demand-side effi-

1       ciencies, improved reliability, improved security, re-  
2       duced prices, and improved integration of renewable  
3       resources.

4               (6) Recommendations for legislative or regu-  
5       latory changes to remove barriers to and create in-  
6       centives for smart grid system implementation and  
7       to meet the policy goals of this title.

8               (7) An estimate of the potential costs required  
9       for modernization of the electricity grid, with speci-  
10      ficity relative to geographic areas and components of  
11      the grid, together with an assessment of whether the  
12      necessary funds would be available to meet such  
13      costs, and the sources of such funds.

14              (8) An assessment of ancillary benefits to other  
15      economic sectors or activities beyond the electricity  
16      sector, such as potential broadband service over  
17      power lines.

18              (9) An assessment of technologies, activities or  
19      opportunities in energy end use devices, customer  
20      premises, buildings, and power generation and stor-  
21      age devices that could accelerate or expand the im-  
22      pact and effectiveness of smart grid advances.

23              (10) An assessment of potential risks to per-  
24      sonal privacy, corporate confidentiality, and grid se-  
25      curity from the spread of smart grid technologies,

1 and if so what additional measures and policies are  
2 needed to assure privacy and information protection  
3 for electric customers and grid partners, and cyber-  
4 security protection for extended grid systems.

5 (11) An assessment of the readiness of market  
6 forces to drive further implementation and evolution  
7 of “smart grid” technologies in the absence of gov-  
8 ernment leadership.

9 (12) Recommendations to the Secretary of En-  
10 ergy and other Federal officers on actions they  
11 should take to assist.

12 The Commission may request electric utilities to provide  
13 information relating to deployment and planned deploy-  
14 ment of smart grid systems and technologies. At the re-  
15 quest of the utility, the Commission shall maintain the  
16 confidentiality of utility-specific or specific security-related  
17 information. The Commission shall provide opportunities  
18 for input and comment by interested persons, including  
19 representatives of electricity consumers, Smart Grid tech-  
20 nology service providers, the electric utility industry, and  
21 State and local government.

22 (b) STATE AND REGIONAL ASSESSMENT AND RE-  
23 PORT.—States or groups of States are encouraged to par-  
24 ticipate in the development of State or region-specific com-  
25 ponents of the assessment and report under subsection

1 (a). Such State-specific components may address the as-  
2 sessment and reporting criteria above but also may include  
3 but not be limited to any of the following:

4 (1) Assessment of types of security threats to  
5 electricity delivery.

6 (2) Energy assurance and response plans to ad-  
7 dress security threats.

8 (3) Plans for introduction of smart grid sys-  
9 tems and technologies over 3, 5, and 10 year plan-  
10 ning horizons.

11 The Commission may make grants to States that begin  
12 development of a State or Regional Plan within 180 days  
13 after the enactment of this Act to offset up to one-half  
14 of the costs required to develop such plans.

15 (c) SMART GRID REPORT.—Based on its completed  
16 initial assessment under subsection (a), the Commission  
17 shall submit a report to Congress and the President not  
18 later than 2 years after the date of enactment of this Act  
19 and subsequent reports every 2 years thereafter. Each re-  
20 port shall include recommendations to the President and  
21 to the Congress on actions necessary to modernize the  
22 electricity grid. The Commission shall annually update  
23 and revise its report and as well as conduct ongoing moni-  
24 toring and evaluation activities.

1 (d) CONSULTATION AND PUBLIC INPUT.—The Com-  
2 mission shall consult with the Secretary of Energy and  
3 the Federal Energy Regulatory Commission on technical  
4 issues associated with advanced electricity grid tech-  
5 nologies. The Commission shall to the extent feasible pro-  
6 vide for broad and frequent input from stakeholders and  
7 the general public.

8 (e) INTEROPERABILITY PROTOCOLS AND MODEL  
9 STANDARDS FOR INFORMATION MANAGEMENT.—

10 (1) IN GENERAL.—The Grid Modernization  
11 Commission shall work with the National Institute  
12 of Standards and Technology, as well as with Smart  
13 Grid stakeholders, to develop protocols and model  
14 standards for information management to achieve  
15 interoperability of smart grid devices and systems.  
16 Such protocols and model standards shall be flexible,  
17 uniform, and technology-neutral, including but not  
18 limited to technologies for communication of Smart  
19 Grid information. Such protocols and standards  
20 shall further align policy, business, and technology  
21 approaches in a manner that—

22 (A) enables all electric resources, including  
23 demand-side resources, storage devices, renew-  
24 able generation resources, other distributed gen-  
25 eration resources, to be interconnected to and

1 function compatibly with the grid, on an auto-  
2 mated basis to the extent appropriate;

3 (B) enables electricity-consuming equip-  
4 ment to communicate with and contribute to an  
5 efficient, reliable electricity network, on an  
6 automated basis to the extent appropriate;

7 (C) enhances two-way communication be-  
8 tween Smart-Grid enabled devices connected to  
9 the electric power grid;

10 (D) supports the ability of Smart-Grid en-  
11 abled devices to exchange information, regard-  
12 less of the operating system, programming lan-  
13 guages, or media of communication utilized by  
14 such devices;

15 (E) enables the operators of utilities and  
16 regional system operators of the grid to auto-  
17 matically detect anomalies and respond to iso-  
18 late areas affected in order to maintain reli-  
19 ability; and

20 (F) enables State regulators and individual  
21 utility managers to develop rate structures and  
22 regulations incorporating Smart Grid capabili-  
23 ties for the benefit of consumers and the elec-  
24 tricity system, accommodating increased de-  
25 mand response and distributed generation.

1           (2) MEETINGS AND WORKING GROUP FOR DE-  
2           VELOPMENT OF INTEROPERABILITY PROTOCOLS AND  
3           MODEL STANDARDS.—Within 60 days after the en-  
4           actment of this section, the Director of the National  
5           Institute of Standards and Technology shall convene  
6           meetings of experts and stakeholders to discuss and  
7           achieve such standards, for the purpose of forming  
8           an ongoing voluntary working group. Upon the cre-  
9           ation of the Grid Modernization Commission, the  
10          Commission shall assume the role of convening fur-  
11          ther such meetings and collaborating with such a  
12          working group to continue progress towards such  
13          standards, with continued technical support from the  
14          Director of the National Institute of Standards and  
15          Technology. The Gridwise Architecture Council, the  
16          International Electrical and Electronics Engineers,  
17          the National Electric Reliability Organization recog-  
18          nized by the Federal Energy Regulatory Commis-  
19          sion, and National Electrical Manufacturer’s Asso-  
20          ciation shall be among stakeholders invited to such  
21          meetings, together with other groups of manufactur-  
22          ers of equipment that could usefully be Smart-Grid  
23          capable, groups of customers, State and Federal reg-  
24          ulators, electric utility groups, communications and  
25          computer experts, and other Federal offices and

1 agencies that have roles related to security, commu-  
2 nications, computerization, and reliability of the elec-  
3 tricity system.

4 (3) REPORTING AND ADOPTION OF PROTOCOLS  
5 AND MODEL STANDARDS.—

6 (A) REPORTING REQUIREMENTS.—The Di-  
7 rector of the National Institute of Standards  
8 and Technology and the Grid Modernization  
9 Commission, after it is created, shall report an-  
10 nually to Congress on the progress of creating  
11 such protocols and model standards.

12 (B) ADOPTION.—The Commission shall re-  
13 view such protocols and standards as are rec-  
14 ommended by the working group and, upon  
15 finding that they meet the goals stated in para-  
16 graph (1), shall publish such finding, and shall  
17 encourage utilities, regulators, and other stake-  
18 holders to adopt to such standards.

19 (C) PUBLICATION.—Except to the extent  
20 they may allow or create threats to grid reli-  
21 ability and security, such standards and proto-  
22 cols shall be made publicly available for general  
23 use by manufacturers, utilities, regulators, and  
24 others.

1 (D) GOAL.—The intent of Congress is that  
2 such protocols and model standards will be ini-  
3 tially developed, reviewed, and approved for  
4 general adoption, subject to further improve-  
5 ments, within 3 years of the enactment of this  
6 section.

7 (f) AUTHORIZATION.—There are authorized to be ap-  
8 propriated for the purposes of this section—

9 (1) \$5,000,000 to the National Institute of  
10 Standards and Technology for each of fiscal years  
11 2009 through 2012, and such sums as may there-  
12 after be necessary to support the purposes of this  
13 section; and

14 (2) \$20,000,000 to the Secretary of Energy to  
15 support the operations of the Grid Modernization  
16 Commission for each of fiscal years 2009 through  
17 2020.

18 **SEC. 9114. FEDERAL MATCHING FUND FOR SMART GRID IN-**  
19 **VESTMENT COSTS.**

20 (a) MATCHING FUND.—The Secretary of Energy  
21 shall establish a Smart Grid Investment Matching Grant  
22 Program to provide reimbursement of one-fourth of quali-  
23 fying Smart Grid investments.

1 (b) QUALIFYING INVESTMENTS.—Qualifying Smart  
2 Grid investments may include any of the following made  
3 on or after the date of enactment of this Act:

4 (1) In the case of appliances covered for pur-  
5 poses of establishing energy conservation standards  
6 under part B of title III of the Energy Policy and  
7 Conservation Act of 1975 (42 U.S.C. 6291 and fol-  
8 lowing), the documented expenditures incurred by a  
9 manufacturer of such appliances associated with  
10 purchasing or designing, creating the ability to man-  
11 ufacture, and manufacturing and installing for one  
12 calendar year, internal devices that allow the appli-  
13 ance to engage in Smart Grid functions.

14 (2) In the case of specialized electricity-using  
15 equipment, including motors and drivers, installed in  
16 industrial or commercial applications, the docu-  
17 mented expenditures incurred by its owner or its  
18 manufacturer of installing devices or modifying that  
19 equipment to engage in Smart Grid functions.

20 (3) In the case of transmission and distribution  
21 equipment fitted with monitoring and communica-  
22 tions devices to enable smart grid functions, the docu-  
23 mented expenditures incurred by the electric utility  
24 to purchase and install such monitoring and commu-  
25 nications devices.

1           (4) In the case of metering devices, sensors,  
2           control devices, and other devices integrated with  
3           and attached to an electric utility system that are  
4           capable of engaging in Smart Grid functions, the  
5           documented expenditures incurred by the electric  
6           utility and its customers to purchase and install  
7           such devices.

8           (5) In the case of software that enables devices  
9           or computers to engage in Smart Grid functions, the  
10          documented purchase costs of the software.

11          (6) In the case of entities that operate or co-  
12          ordinate operations of regional electric grids, the  
13          documented expenditures for purchasing and install-  
14          ing such equipment that allows Smart Grid func-  
15          tions to operate and be combined or coordinated  
16          among multiple electric utilities and between that re-  
17          gion and other regions.

18          (7) In the case of persons or entities other than  
19          electric utilities owning and operating a distributed  
20          electricity generator, the documented expenditures of  
21          enabling that generator to be monitored, controlled,  
22          or otherwise integrated into grid operations and elec-  
23          tricity flows on the grid utilizing Smart Grid func-  
24          tions.

1           (8) In the case of electric or hybrid-electric ve-  
2           hicles, the documented expenses for devices that  
3           allow the vehicle to engage in Smart Grid functions.

4           (9) The documented expenditures related to  
5           purchasing and implementing Smart Grid functions  
6           in such other cases as the Secretary of Energy shall  
7           identify. In making such grants, the Secretary shall  
8           seek to reward innovation and early adaptation, even  
9           if success is not complete, rather than deployment of  
10          proven and commercially viable technologies.

11          (c) INVESTMENTS NOT INCLUDED.—Qualifying  
12          Smart Grid investments do not include any of the fol-  
13          lowing:

14               (1) Expenditures for electricity generation,  
15               transmission, or distribution infrastructure or equip-  
16               ment not directly related to enabling Smart Grid  
17               functions.

18               (2) After the effective date of a standard under  
19               paragraph (21) of section 111(d) of the Public Util-  
20               ity Regulatory Policies Act of 1978 (relating to  
21               Smart Grid information), an investment that is not  
22               in compliance with such standard.

23               (3) After the development and publication by  
24               the Commission of protocols and model standards  
25               for interoperability of smart grid devices and tech-

1 nologies, an investment that fails to incorporate any  
2 of such protocols or model standards.

3 (4) Expenditures for physical interconnection of  
4 generators or other devices to the grid except those  
5 that are directly related to enabling Smart Grid  
6 functions.

7 (5) Expenditures for ongoing salaries, benefits,  
8 or personnel costs not incurred in the initial installa-  
9 tion, training, or start up of smart grid functions.

10 (6) Expenditures for travel, lodging, meals or  
11 other personal costs.

12 (7) Ongoing or routine operation, billing, cus-  
13 tomer relations, security, and maintenance expendi-  
14 tures.

15 (8) Such other expenditures that the Secretary  
16 of Energy determines not to be Qualifying Smart  
17 Grid Investments by reason of the lack of the ability  
18 to perform smart grid functions or lack of direct re-  
19 lationship to smart grid functions.

20 (d) SMART GRID FUNCTIONS.—The term “smart  
21 grid functions” means any of the following:

22 (1) The ability to develop, store, send and re-  
23 ceive digital information concerning electricity use,  
24 costs, prices, time of use, nature of use, storage, or  
25 other information relevant to device, grid, or utility

1 operations, to or from or by means of the electric  
2 utility system, through one or a combination of de-  
3 vices and technologies.

4 (2) The ability to develop, store, send and re-  
5 ceive digital information concerning electricity use,  
6 costs, prices, time or use, nature of use, storage, or  
7 other information relevant to device, grid, or utility  
8 operations to or from a computer or other control  
9 device.

10 (3) The ability to measure or monitor electricity  
11 use as a function of time of day, power quality char-  
12 acteristics such as voltage level, current, cycles per  
13 second, or source or type of generation and to store,  
14 synthesize or report that information by digital  
15 means.

16 (4) The ability to sense and localize disruptions  
17 or changes in power flows on the grid and commu-  
18 nicate such information instantaneously and auto-  
19 matically for purposes of enabling automatic protec-  
20 tive responses to sustain reliability and security of  
21 grid operations.

22 (5) The ability to detect, prevent, communicate  
23 with regard to, respond to, or recover from system  
24 security threats, including cyber-security threats and

1 terrorism, using digital information, media, and de-  
2 vices.

3 (6) The ability of any appliance or machine to  
4 respond to such signals, measurements, or commu-  
5 nications automatically or in a manner programmed  
6 by its owner or operator without independent human  
7 intervention.

8 (7) The ability to use digital information to op-  
9 erate functionalities on the electric utility grid that  
10 were previously electro-mechanical or manual.

11 (8) The ability to use digital controls to manage  
12 and modify electricity demand, enable congestion  
13 management, assist in voltage control, provide oper-  
14 ating reserves, and provide frequency regulation.

15 (9) Such other functions as the Secretary of  
16 Energy may identify as being necessary or useful to  
17 the operation of a Smart Grid.

18 (e) OFFICE.—The Secretary of Energy shall—

19 (1) establish an Office to administer the Smart  
20 Grid Investment Grant Program, assuring that ex-  
21 pert resources from the Commission on Grid Mod-  
22 ernization, the Office of Energy Distribution and  
23 Electricity Reliability, and the Office of Energy Effi-  
24 ciency and Renewable Energy are fully available to  
25 advise on its administration and actions;

1           (2) appoint a Senior Executive Service officer  
2           to direct the Office, together with such personnel as  
3           are required to administer the Smart Grid Invest-  
4           ment Grant program;

5           (3) establish and publish in the Federal Reg-  
6           ister, within 180 days after the enactment of this  
7           Act procedures by which applicants who have made  
8           qualifying Smart Grid investments can seek and ob-  
9           tain reimbursement of one-fourth of their docu-  
10          mented expenditures;

11          (4) establish procedures to assure that there is  
12          no duplication or multiple reimbursement for the  
13          same investment or costs, that the reimbursement  
14          goes to the party making the actual expenditures for  
15          Qualifying Smart Grid Investments, and that the  
16          grants made have significant effect in encouraging  
17          and facilitating the development of a smart grid.;

18          (5) maintain public records of reimbursements  
19          made, recipients, and qualifying Smart Grid invest-  
20          ments which have received reimbursements;

21          (6) establish procedures to provide, in cases  
22          deemed by the Secretary to be warranted, advance  
23          payment of moneys up to the full amount of the pro-  
24          jected eventual reimbursement, to creditworthy ap-  
25          plicants whose ability to make Qualifying Smart

1 Grid Investments may be hindered by lack of initial  
2 capital, in lieu of any later reimbursement for which  
3 that applicant qualifies, and subject to full return of  
4 the advance payment in the event that the Quali-  
5 fying Smart Grid investment is not made;

6 (7) establish procedures to provide, in the event  
7 appropriated moneys in any year are insufficient to  
8 provide reimbursements for qualifying Smart Grid  
9 investments, that such reimbursement would be  
10 made in the next fiscal year or whenever funds are  
11 again sufficient, with the condition that the insuffi-  
12 ciency of funds to reimburse Qualifying Smart Grid  
13 Investments from moneys appropriated for that pur-  
14 pose does not create a Federal obligation to that ap-  
15 plicant; and

16 (8) have and exercise the discretion to deny  
17 grants for investments that do not qualify in the  
18 reasonable judgement of the Secretary.

19 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to the Secretary of En-  
21 ergy the sums of—

22 (1) \$10,000,000 for each of fiscal years 2008  
23 through 2012 to provide for administration of the  
24 Smart Grid Investment Matching Fund; and

1           (2) \$250,000,000 for fiscal year 2008 and  
2           \$500,000,000 for each of fiscal years 2009 through  
3           2012 to provide reimbursements of one-fourth of  
4           Qualifying Smart Grid Investments.

5 **SEC. 9115. SMART GRID TECHNOLOGY DEPLOYMENT.**

6           (a) POWER GRID DIGITAL INFORMATION TECH-  
7 NOLOGY.—The Secretary of Energy shall conduct pro-  
8 grams to—

9           (1) deploy advanced techniques for measuring  
10          peak load reductions and energy efficiency savings  
11          on customer premises from smart metering, demand  
12          response, distributed generation and electricity stor-  
13          age systems;

14          (2) implement means for demand response, dis-  
15          tributed generation, and storage to provide ancillary  
16          services;

17          (3) advance the use of wide-area measurement  
18          networks including data mining, visualization, ad-  
19          vanced computing, and secure and dependable com-  
20          munications in a highly distributed environment; and

21          (4) implement reliability technologies in a grid  
22          control room environment against a representative  
23          set of local outage and wide area blackout scenarios.

24           (b) SMART GRID REGIONAL DEMONSTRATION PRO-  
25 GRAM.—

1           (1) ESTABLISHMENT OF PROGRAM.—The Sec-  
2           retary of Energy shall establish a program of dem-  
3           onstration projects specifically focused on advanced  
4           technologies for power grid sensing, communications,  
5           analysis, and power flow control, including the inte-  
6           gration of demand-side resources into grid manage-  
7           ment. The goals of this program shall be to—

8                   (A) demonstrate the potential benefits of  
9                   concentrated investments in advanced grid tech-  
10                  nologies on a regional grid;

11                  (B) facilitate the commercial transition  
12                  from the current power transmission and dis-  
13                  tribution system technologies to advanced tech-  
14                  nologies; and

15                  (C) facilitate the integration of advanced  
16                  technologies in existing electric networks to im-  
17                  prove system performance, power flow control  
18                  and reliability.

19           (2) DEMONSTRATION PROJECTS.—The Sec-  
20           retary shall establish Smart Grid demonstration  
21           projects for not more than 5 electric utility systems  
22           of various types and sizes under this subsection.  
23           Such demonstration projects shall be undertaken in  
24           cooperation with the electric utility. Under such  
25           demonstration projects, financial assistance shall be

1 available to cover not more than one-half of the  
2 qualifying Smart Grid technology investments made  
3 by the electric utility. Any project receiving financial  
4 assistance under this section shall not be eligible to  
5 receive financial assistance (including loan guaran-  
6 tees) under any other Federal program.

7 (c) AUTHORIZATION.—

8 (1) POWER GRID DIGITAL INFORMATION TECH-  
9 NOLOGY PROGRAMS.—There are authorized to be ap-  
10 propriated to carry out subsection (a) such sums as  
11 are necessary for each of the fiscal years 2008  
12 through 2012.

13 (2) SMART GRID REGIONAL DEMONSTRATION  
14 PROGRAM.—There is authorized to be appropriated  
15 to carry out subsection (b) \$20,000,000 for each of  
16 the fiscal years 2008 through 2012.

17 **SEC. 9116. SMART GRID INFORMATION REQUIREMENTS.**

18 (a) FINDINGS.—Congress finds that Smart Grid  
19 technologies will require, for their optimum use by elec-  
20 tricity consumers, that such consumers have access to in-  
21 formation on prices, use, and other factors in possession  
22 of their utilities or electricity suppliers, in order to assist  
23 the customers in optimizing their electricity use and lim-  
24 iting the associated environmental impacts.

1           (b) DEVELOPMENT OF RULES.—The Commission on  
2 Grid Modernization shall within one year of its initial  
3 meeting develop and declare a standard for the collection,  
4 presentation and delivery of information to electricity pur-  
5 chasers as required by the standard under section  
6 111(d)(21) of the Public Utility Regulatory Policies Act  
7 of 1978. Such standard shall provide purchasers with dif-  
8 ferent access options for such information. Such standard  
9 shall be developed with input from the Secretary of En-  
10 ergy, the Federal Energy Regulatory Commission, the Ad-  
11 ministrator of the Environmental Protection Agency,  
12 States, and stakeholders representing, but not limited to,  
13 electric utilities, energy efficiency and demand response  
14 experts, environmental organizations and consumer orga-  
15 nizations.

16           (c) APPLICATION OF SMART GRID INFORMATION  
17 STANDARD TO FEDERAL ENTITIES AND WHOLESALE  
18 MARKETS.—Within 60 days of the declaration of the  
19 standard under subsection (b), the Federal Energy Regu-  
20 latory Commission shall propose a rule under which all  
21 public utilities, with respect to federally jurisdictional sales  
22 for resale of electricity in interstate commerce, and all ap-  
23 proved regional transmission organizations subject to its  
24 jurisdiction, will implement those elements of the Smart  
25 Grid information standard developed pursuant to this sec-

1 tion that the Commission determines to be relevant and  
2 to add value for purchasers of wholesale power or those  
3 utilizing interstate transmission. The Tennessee Valley  
4 Authority, Bonneville Power Administration, and Federal  
5 power administrations shall, within 90 days of the adop-  
6 tion of a final rule by the Commission, adopt it for their  
7 own sales or transmission of electricity.

8 **SEC. 9117. STATE CONSIDERATION OF INCENTIVES FOR**  
9 **SMART GRID.**

10 (a) CONSIDERATION OF ADDITIONAL STANDARDS.—  
11 Section 111(d) of the Public Utility Regulatory Policies  
12 Act of 1978 (16 U.S.C. 2621(d)) is amended by adding  
13 at the end:

14 “(16) UTILITY INVESTMENT IN SMART GRID IN-  
15 VESTMENTS.—Each electric utility shall prior to un-  
16 dertaking investments in non-advanced grid tech-  
17 nologies demonstrate that alternative investments in  
18 advanced grid technologies have been considered, in-  
19 cluding from a standpoint of cost-effectiveness,  
20 where such cost-effectiveness considers costs and  
21 benefits on a life-cycle basis.

22 “(17) UTILITY COST OF SMART GRID INVEST-  
23 MENTS.—Each electric utility shall be permitted  
24 to—

1           “(A) recover from ratepayers the capital  
2           and operating expenditures and other costs of  
3           the utility for qualified smart grid system, in-  
4           cluding a reasonable rate of return on the cap-  
5           ital expenditures of the utility for a qualified  
6           smart grid system, and

7           “(B) recover in a timely manner the re-  
8           maining book-value costs of equipment rendered  
9           obsolete by the deployment of a qualified smart  
10          grid system, based on the remaining depreciable  
11          life of the obsolete equipment.

12          “(18) RATE DESIGN MODIFICATIONS TO PRO-  
13          MOTE ENERGY EFFICIENCY INVESTMENTS.—

14                 “(A) IN GENERAL.—The rates allowed to  
15                 be charged by any electric utility shall—

16                         “(i) align utility incentives with the  
17                         delivery of cost-effective energy efficiency;  
18                         and

19                         “(ii) promote energy efficiency invest-  
20                         ments.

21                 “(B) POLICY OPTIONS.—In complying with  
22                 subparagraph (A), each State regulatory au-  
23                 thority and each nonregulated utility shall con-  
24                 sider—

1           “(i) removing the throughput incen-  
2           tive and other regulatory and management  
3           disincentives to energy efficiency;

4           “(ii) providing utility incentives for  
5           the successful management of energy effi-  
6           ciency programs;

7           “(iii) including the impact on adoption  
8           of energy efficiency as 1 of the goals of re-  
9           tail rate design, recognizing that energy ef-  
10          ficiency must be balanced with other objec-  
11          tives;

12          “(iv) adopting rate designs that en-  
13          courage energy efficiency for each cus-  
14          tomer class; and

15          “(v) allowing timely recovery of en-  
16          ergy efficiency-related costs.

17          “(19) SMART GRID INFORMATION.—

18               “(A) STANDARD.—All electricity pur-  
19               chasers shall be provided direct access, both in  
20               written and electronic machine-readable form,  
21               to information from their electricity provider as  
22               provided in subparagraph (B).

23               “(B) INFORMATION.—Information pro-  
24               vided under this section shall conform to the  
25               standardized rules issued by the Commission on

1 Grid Modernization under section 9116(b) of  
2 the Smart Grid Facilitation Act of 2007 and  
3 shall include:

4 “(i) PRICES.—Purchasers and other  
5 interested persons shall be provided with  
6 information on:

7 “(I) Time-based electricity prices  
8 in the wholesale electricity market;  
9 and

10 “(II) Time-based electricity retail  
11 prices or rates that are available to  
12 the purchasers.

13 “(ii) USAGE.—Purchasers shall be  
14 provided with the number of electricity  
15 units, expressed in kwh, purchased by  
16 them

17 “(iii) INTERVALS AND PROJEC-  
18 TIONS.—Updates of information on prices  
19 and usage shall be offered on not less than  
20 a daily basis, shall include hourly price and  
21 use information, where available, and shall  
22 include a day-ahead projection of such  
23 price information to the extent available.

24 “(iv) SOURCES.—Purchasers and  
25 other interested person shall be provided

1 with written information on the sources of  
2 the power provided by the utility, to the  
3 extent it can be determined, by type of  
4 generation, including greenhouse gas emis-  
5 sions and criteria pollutants associated  
6 each type of generation, for intervals dur-  
7 ing which such information is available on  
8 a cost-effective basis, but not less than  
9 monthly.

10 “(C) ACCESS.—Purchasers shall be able to  
11 access their own information at any time  
12 through the internet and on other means of  
13 communication elected by that utility for Smart  
14 Grid applications. Other interested persons  
15 shall be able to access information not specific  
16 to any purchaser through the Internet. Infor-  
17 mation specific to any purchaser shall be pro-  
18 vided solely to that purchaser.”.

19 (b) RECONSIDERATION OF CERTAIN STANDARDS.—  
20 Section 112 of the Public Utility Regulatory Policies Act  
21 of 1978 (16 U.S.C. 2622) is amended by adding the fol-  
22 lowing at the end thereof:

23 “(g) RECONSIDERATION OF PRIOR TIME-OF-DAY  
24 AND COMMUNICATION STANDARDS.—Not later than 1  
25 year after the enactment of this subsection, each State

1 regulatory authority (with respect to each electric utility  
2 for which it has ratemaking authority) and each nonregu-  
3 lated utility shall commence a reconsideration under sec-  
4 tion 111, or set a hearing date for reconsideration, with  
5 respect to the standards established by paragraphs (3)  
6 and (14) of section 111(d) to take into account Smart  
7 Grid technologies. Not later than 2 years after the date  
8 of the enactment of this subsection, each State regulatory  
9 authority (with respect to each electric utility for which  
10 it has ratemaking authority), and each nonregulated elec-  
11 tric utility, shall complete the reconsideration, and shall  
12 make the determination, referred to in section 111 with  
13 respect to the standards established by paragraphs (3)  
14 and (14) of section 111(d).”.

15 (c) COMPLIANCE.—

16 (1) TIME LIMITATIONS.—Section 112(b) of the  
17 Public Utility Regulatory Policies Act of 1978 (16  
18 U.S.C. 2622(b)) is amended by adding the following  
19 at the end thereof:

20 “(6)(A) Not later than 1 year after the enactment  
21 of this paragraph, but not less than 3 years after the con-  
22 clusion of any prior review of such standards, each State  
23 regulatory authority (with respect to each electric utility  
24 for which it has ratemaking authority) and each nonregu-  
25 lated utility shall commence the consideration referred to

1 in section 111, or set a hearing date for consideration,  
2 with respect to the standards established by paragraphs  
3 (16) through (18) of section 111(d). Not later than 6  
4 months after the promulgation of rules by the Commission  
5 on Grid Modernization under section 9116(b) of the Smart  
6 Grid Facilitation Act of 2007, each State regulatory au-  
7 thority (with respect to each electric utility for which it  
8 has ratemaking authority) and each nonregulated utility  
9 shall commence the consideration referred to in section  
10 111, or set a hearing date for consideration, with respect  
11 to the standard established by paragraph (19) of section  
12 111(d).

13           “(B) Not later than 2 years after the date of  
14           the enactment of the this paragraph, but not less  
15           than 4 years after the conclusion of any prior review  
16           of such standard, each State regulatory authority  
17           (with respect to each electric utility for which it has  
18           ratemaking authority), and each nonregulated elec-  
19           tric utility, shall complete the consideration, and  
20           shall make the determination, referred to in section  
21           111 with respect to each standard established by  
22           paragraphs (16) through (18) of section 111(d). Not  
23           later than 18 months after the promulgation of rules  
24           by the Commission on Grid Modernization under  
25           section 9116(b) of the Smart Grid Facilitation Act

1 of 2007 each State regulatory authority (with re-  
2 spect to each electric utility for which it has rate-  
3 making authority), and each nonregulated electric  
4 utility, shall complete the consideration, and shall  
5 make the determination, referred to in section 111  
6 with respect to each standard established by para-  
7 graph (19) of section 111(d).”.

8 (2) FAILURE TO COMPLY.—Section 112(c) of  
9 such Act is amended by adding the following at the  
10 end: “In the case of the standards established by  
11 paragraphs (16) through (19) of section 111(d), the  
12 reference contained in this subsection to the date of  
13 enactment of this Act shall be deemed to be a ref-  
14 erence to the date of enactment of such para-  
15 graphs.”.

16 (3) PRIOR STATE ACTIONS.—Section 112(d) of  
17 such Act is amended by inserting “and paragraphs  
18 (16) through (18)” before “of section 111(d)”.

19 **SEC. 9118. DOE STUDY OF SECURITY ATTRIBUTES OF**  
20 **SMART GRID SYSTEMS.**

21 (a) DOE STUDY.—The Secretary of Energy shall,  
22 within 6 months after the Grid Modernization Commission  
23 completes its first biennial assessment and report under  
24 section 9113 of this Act, submit a report to Congress that  
25 provides a quantitative assessment and determination of

1 the existing and potential impacts of the deployment of  
2 Smart Grid systems on improving the security of the Na-  
3 tion's electricity infrastructure and operating capability.  
4 The report shall include but not be limited to specific rec-  
5 ommendations on each of the following:

6           (1) How smart grid systems can help in making  
7 the Nation's electricity system less vulnerable to dis-  
8 ruptions due to intentional acts against the system.

9           (2) How smart grid systems can help in restor-  
10 ing the integrity of the Nation's electricity system  
11 subsequent to disruptions.

12           (3) How smart grid systems can facilitate emer-  
13 gency communications and control of the Nation's  
14 electricity system during times of localized or nation-  
15 wide emergency.

16       (b) CONSULTATION.—The Secretary shall consult  
17 with other Federal agencies in the development of the re-  
18 port under this section, including but not limited to the  
19 Secretary of Homeland Security, the Federal Energy Reg-  
20 ulatory Commission and the Electric Reliability Organiza-  
21 tion certified by the Commission under section 215(c) of  
22 the Federal Power Act (16 U.S.C. 824 o) as added by  
23 section 1211 of the Energy Policy Act of 2005 (Public  
24 Law 109–58; 119 Stat. 941)

1 (c) FUNDING.—The Secretary shall fund demonstra-  
2 tion projects for the purpose of demonstrating the findings  
3 of the report under this section. Not more than  
4 \$10,000,000 are authorized to be appropriated for such  
5 projects.

6 **PART 2—DEMAND RESPONSE**

7 **SEC. 9121. ELECTRICITY SECTOR DEMAND RESPONSE.**

8 (a) AMENDMENT OF NECPA.—Title V of the Na-  
9 tional Energy Conservation Policy Act (42 U.S.C. 8201  
10 and following) is amended by adding the following new  
11 part at the end thereof:

12 **“PART 5—PEAK DEMAND REDUCTION**

13 **“SEC. 571. DEFINITIONS.**

14 “(a) SECRETARY.—As used in this part, the term  
15 ‘Secretary’ means the Secretary of Energy.

16 “(b) FEDERAL AGENCY.—As used in this part, the  
17 term ‘Federal agency’ has the same meaning as provided  
18 by section 551 of this Act.

19 **“SEC. 572. FEDERAL ELECTRICITY PEAK DEMAND REDUC-**  
20 **TION STANDARD.**

21 “(a) 2008 AGENCY ANNUAL ENERGY PLAN.—Each  
22 Federal agency shall prepare, and include in its annual  
23 report under section 548(a) of this Act, each of the fol-  
24 lowing:

1           “(1) A determination of the agency’s aggregate  
 2           electricity demand during the system peak hours for  
 3           the utilities providing electricity service to its facili-  
 4           ties during 2006 and 2007.

5           “(2) A forecast for each year through 2018 of  
 6           the projected growth in such peak demand in light  
 7           of projected growth of facilities, staff, activities, elec-  
 8           tric intensity of activities, and other relevant factors.

9           “(b) FEDERAL ELECTRICITY PEAK DEMAND REDUC-  
 10          TION STANDARD.—

11           “(1) IN GENERAL.—Except as provided in para-  
 12           graph (2), for calendar year 2009 and each calendar  
 13           year thereafter, each Federal agency shall reduce its  
 14           aggregate peak electricity demand or make such  
 15           amounts of electricity demand available in the form  
 16           of demand response, by the percentage amount spec-  
 17           ified in the Federal Electricity Peak Demand Reduc-  
 18           tion Standard set forth in the following table:

**“Federal Electricity Peak Demand Reduction Standard**

<b>Calendar Year</b>	<b>Reduction of Peak Demand Forecast</b>
2009 .....	2 percent of the peak demand forecast for cal- endar year 2009
2010 .....	4 percent of the peak demand forecast for cal- endar year 2010
2011 .....	6 percent of the peak demand forecast for cal- endar year 2011
2012 .....	8 percent of the peak demand forecast for cal- endar year 2012
2013 .....	10 percent of the peak demand forecast for cal- endar year 2013

**“Federal Electricity Peak Demand Reduction Standard—**  
Continued

<b>Calendar Year</b>	<b>Reduction of Peak Demand Forecast</b>
2014 .....	12 percent of the peak demand forecast for calendar year 2014
2015 .....	14 percent of the peak demand forecast for calendar year 2015
2016 .....	16 percent of the peak demand forecast for calendar year 2016
2017 .....	18 percent of the peak demand forecast for calendar year 2017
2018 and each calendar year thereafter.	20 percent of the peak demand forecast for the applicable calendar year

1        In the table above, the term ‘forecast’ refers to the  
2        forecast set forth in the 2008 report under section  
3        548(a) of this Act as updated in accordance with  
4        subsection in (c)(1)(C).

5            “(2) EXCEPTION.—The standard under this  
6        subsection shall not apply to any activity of a Fed-  
7        eral agency relating to defense or national security  
8        if compliance with the standard would have an ad-  
9        verse mission impact on the activity, as determined  
10       by the Secretary of Defense or the Secretary of  
11       Homeland Security.

12        “(c) IMPLEMENTATION OF STANDARD.—

13            “(1) IN GENERAL.—Not later than January 1,  
14        2010, and each calendar year thereafter, each Fed-  
15        eral agency shall include in the annual energy plan  
16        of the Federal agency each of the following:

1           “(A) An assessment of whether the Fed-  
2           eral agency was in compliance with the stand-  
3           ard under subsection (b) for the preceding year.

4           “(B) A description of—

5                   “(i) the method by which the Federal  
6                   agency proposes to comply with the stand-  
7                   ard for the following calendar year; and

8                   “(ii) the factors relied on by the head  
9                   of the Federal agency in determining  
10                  whether to participate in demand response  
11                  programs offered by an electric utility or  
12                  others during the preceding calendar year;  
13                  and

14                  “(iii) if the Federal agency did not  
15                  participate in a demand response program  
16                  offered by each utility providing electric  
17                  service to facilities of the agency during  
18                  the preceding calendar year, an expla-  
19                  nation for the decision by the head of the  
20                  Federal agency to not participate.

21           “(C) An update of the agency’s prior fore-  
22           cast for the remaining years in the period until  
23           2018.

24           “(2) AVAILABILITY TO PUBLIC.—Not later than  
25           January 1, 2010, and each calendar year thereafter,

1 the head of each Federal agency shall make available  
2 to the public a description of each provision included  
3 in the annual energy plan of the Federal agency de-  
4 scribed in subparagraphs (A) through (C) of para-  
5 graph (1).

6 “(d) MODIFICATIONS TO FEDERAL ENERGY MAN-  
7 AGEMENT PROGRAM.—The Secretary shall make any  
8 modification to the Federal Energy Management Program  
9 of the Department of Energy that the Secretary deter-  
10 mines to be necessary to—

11 “(1) incorporate the standard established under  
12 subsection (b) into the Federal Energy Management  
13 Program;

14 “(2) assist any Federal agency to comply with  
15 the standard established under subsection (b)  
16 through any appropriate means, including con-  
17 ducting 1 or more demonstration projects at Federal  
18 facilities.

19 “(e) ANNUAL REPORT.—Not later than March 1,  
20 2010, and annually thereafter, the Secretary shall submit  
21 to Congress a report that evaluates the success of agencies  
22 in meeting the standard established under subsection (b)  
23 and the success of the Federal Energy Management Pro-  
24 gram in assisting agencies with meeting the standard, and  
25 the costs and benefits of such participation.

1 **“SEC. 573. NATIONAL ACTION PLAN FOR DEMAND RE-**  
2 **SPONSE.**

3 “(a) NATIONAL ASSESSMENT AND REPORT.—The  
4 Grid Modernization Commission established under subtitle  
5 A of title I of the Smart Grid Facilitation Act of 2007  
6 shall conduct a National Assessment of Demand Re-  
7 sponse. The Commission shall, within 18 months of the  
8 date on which the full Commission first meets, submit a  
9 Report to Congress that includes each of the following:

10 “(1) Estimation of nationwide demand response  
11 potential in 5 and 10 year horizons, including data  
12 on a State-by-State basis, and a methodology for up-  
13 dates of such estimates on an annual basis.

14 “(2) Estimation of how much of this potential  
15 can be achieved within 5 and 10 years after the en-  
16 actment of this Act accompanied by specific policy  
17 recommendations that if implemented can achieve  
18 the estimated potential. Such recommendations shall  
19 include options for funding and/or incentives for the  
20 development of demand response resources. The  
21 Commission shall seek to take advantage of pre-  
22 existing research and ongoing work, and shall as-  
23 sume that there is no duplication of effort. The  
24 Commission shall further note any barriers to de-  
25 mand response programs that are flexible , non-dis-  
26 criminatory, and fairly compensatory for the services

1 and benefits made available and shall provide rec-  
2 ommendations for overcoming such barriers.

3 “(b) NATIONAL ACTION PLAN ON DEMAND RE-  
4 SPONSE.—The Grid Modernization Commission shall fur-  
5 ther develop and implement a National Action Plan on De-  
6 mand Response. Such Plan shall be completed within one  
7 year after the completion of the National Assessment of  
8 Demand Response, and shall meet each of the following  
9 objectives:

10 “(1) Provision of adequate technical assistance  
11 to States to allow them to maximize the amount of  
12 demand response resources that can be developed  
13 and deployed.

14 “(2) Implementation of a national communica-  
15 tions program that includes broad-based customer  
16 education and support.

17 “(3) Development and dissemination of tools,  
18 information and other support mechanisms for use  
19 by customers, states, utilities and demand response  
20 providers.

21 “(c) AUTHORIZATION.—There are authorized to be  
22 appropriated to carry out this section not more than  
23 \$10,000,000 for each of the fiscal years 2008 and 2009  
24 and \$20,000,000 for each of the fiscal years 2010 through  
25 2020.



1 Agency, including the Energy Star Program, will in-  
2 corporate and encourage end-use efficiency, demand  
3 response and ‘smart grid’ systems and technologies,  
4 including but not limited to each of the following:

5 “(A) Requirements that appliances and  
6 other equipment are capable of manually and  
7 automatically receiving and acting upon pricing  
8 and control information and or instructions pro-  
9 vided by the customer, a load serving entity or  
10 a third-party designated by the customer.

11 “(B) Requirements for time-based valu-  
12 ation of kilowatt hour reductions in planning  
13 and evaluation of energy efficiency programs.

14 “(C) Education and communication, in-  
15 cluding to state energy officials and state regu-  
16 lators, that build awareness of demand response  
17 and smart grid systems and technologies and  
18 their existing and potential relationship to such  
19 Agency programs.

20 “(b) FUNDING.—There are authorized to be appro-  
21 priated to carry out this section such sums as may be nec-  
22 essary for fiscal year 2010, to remain available until ex-  
23 pended.”.

1 (b) TABLE OF CONTENTS.—The table of contents for  
 2 such Act is amended by adding the following after the  
 3 items relating to part 4 of title V:

“PART 5—PEAK DEMAND REDUCTION

“Sec. 571. Definitions.

“Sec. 572. Federal Electricity Peak Demand Reduction Standard.

“Sec. 573. National action plan for demand response.

“Sec. 574. Report on environmental attributes and impacts of demand response  
 and smart grid systems.”.

4 **Subtitle C—Loan Guarantees**

5 **SEC. 9201. AMOUNT OF LOANS GUARANTEED.**

6 Section 1702 of the Energy Policy Act of 2005 (42  
 7 U.S.C. 16512) is amended—

8 (1) by amending subsection (c) to read as fol-  
 9 lows:

10 “(c) AMOUNT.—

11 “(1) PERCENTAGE OF PROJECT COST.—A guar-  
 12 antee by the Secretary shall not exceed an amount  
 13 equal to 80 percent of the project cost of the facility  
 14 that is the subject of the guarantee, as estimated at  
 15 the time at which the guarantee is issued, and shall  
 16 be no less than the minimum amount determined by  
 17 the Secretary to be likely to attract nonguaranteed  
 18 investment adequate to capitalize the project.

19 “(2) PERCENTAGE OF LOAN.—Subject to para-  
 20 graph (1), the Secretary may guarantee up to 100  
 21 percent of any loan or other debt obligation of the  
 22 borrower to fund an eligible project, and may not

1 issue a rule or regulation establishing a lower per-  
2 centage limit.”; and

3 (2) by adding at the end the following new sub-  
4 section:

5 “(k) WAGES.—No loan guarantee shall be made  
6 under this title unless the borrower has provided to the  
7 Secretary reasonable assurances that all laborers and me-  
8 chanics employed by contractors or subcontractors in the  
9 performance of construction work financed in whole or in  
10 part with the loan will be paid wages at rates not less  
11 than those prevailing on similar work in the locality as  
12 determined by the Secretary of Labor in accordance with  
13 subchapter IV of chapter 31 of title 40, United States  
14 Code (commonly referred to as the Davis-Bacon Act).”.

15 **SEC. 9202. EXCLUSION OF CATEGORIES.**

16 Section 1704 of the Energy Policy Act of 2005 (42  
17 U.S.C. 16514) is amended by adding at the end the fol-  
18 lowing new subsection:

19 “(c) EXCLUSION OF CATEGORIES.—No appropriation  
20 authorized pursuant to this section may exclude any cat-  
21 egory of eligible project described in section 1703.”.

1 **Subtitle D—Renewable Fuel Infra-**  
2 **structure and International Co-**  
3 **operation**

4 **PART 1—RENEWABLE FUEL INFRASTRUCTURE**

5 **SEC. 9301. RENEWABLE FUEL INFRASTRUCTURE DEVELOP-**  
6 **MENT.**

7 (a) DEFINITION.—For purposes of this subtitle—

8 (1) the term “renewable fuel” means E85  
9 biofuel, or B20;

10 (2) the term “biofuel” means fuel produced en-  
11 tirely from biological material and determined by the  
12 Department of Energy and the Environmental Pro-  
13 tection Agency to be commercially viable;

14 (3) the term “B20” means a mixture of bio-  
15 diesel and diesel fuel meeting the standard estab-  
16 lished by the American Society for Testing and Ma-  
17 terials or under section 211(u) of the Clean Air Act  
18 for fuel containing 20 percent biodiesel;

19 (4) the term “E85” means a fuel blend con-  
20 taining 85 percent denatured ethanol and 15 percent  
21 gasoline by volume;

22 (5) the term “flexible-fuel vehicle” means any  
23 motor vehicle warranted by the manufacturer of the  
24 vehicle as capable of operating on gasoline or diesel  
25 fuel and on—

1 (A) E85; or

2 (B) B20; and

3 (6) the term “motor vehicle” means, as defined  
4 in regulations promulgated by the Administrator of  
5 the Environmental Protection Agency that are in ef-  
6 fect on the date of enactment of this Act—

7 (A) a light-duty truck;

8 (B) a light-duty vehicle; or

9 (C) medium-duty passenger vehicle,

10 that is designed to be propelled by gasoline or diesel  
11 fuel.

12 (b) INFRASTRUCTURE DEVELOPMENT GRANTS.—

13 The Secretary of Energy shall establish a program for  
14 making grants for providing assistance to retail and  
15 wholesale motor fuel dealers or other entities for the in-  
16 stallation, replacement, or conversion of motor fuel storage  
17 and dispensing infrastructure to be used exclusively to  
18 store and dispense renewable fuel. Such infrastructure  
19 may include equipment used in the blending, distribution,  
20 and transport of such fuels.

21 (c) RETAIL TECHNICAL AND MARKETING ASSIST-

22 ANCE.—The Secretary of Energy shall enter into contracts  
23 with entities with demonstrated experience in assisting re-  
24 tail fueling stations in installing refueling systems and  
25 marketing renewable fuels nationally, for the provision of

1 technical and marketing assistance to recipients of grants  
2 under this section. Such assistance shall include—

3 (1) technical advice for compliance with applica-  
4 ble Federal and State environmental requirements;

5 (2) help in identifying supply sources and se-  
6 curing long-term contracts; and

7 (3) provision of public outreach, education, and  
8 labeling materials.

9 (d) ALLOCATION.—The Secretary of Energy may re-  
10 serve funds appropriated for carrying out this section to  
11 support renewable fuels infrastructure development  
12 projects with a cost of greater than \$1,000,000, that are  
13 of national significance. The Secretary shall reserve funds  
14 appropriated for the renewable fuels infrastructure devel-  
15 opment grant program for technical and marketing assist-  
16 ance described in subsection (c).

17 (e) SELECTION CRITERIA.—Not later than 12  
18 months after the date of enactment of this Act, the Sec-  
19 retary shall establish criteria for evaluating applications  
20 for grants under this section that will maximize the avail-  
21 ability and use of renewable fuel, and that will ensure that  
22 renewable fuel is available across the country. Such cri-  
23 teria shall provide for—

24 (1) consideration of the public demand for each  
25 renewable fuel in a particular geographic area based

1 on State registration records showing the number of  
2 flexible-fuel vehicles;

3 (2) consideration of the opportunity to create or  
4 expand corridors of renewable fuel stations along  
5 interstate or State highways;

6 (3) consideration of the experience of each ap-  
7 plicant with previous, similar projects;

8 (4) consideration of population, number of flexi-  
9 ble-fuel vehicles, number of retail fuel outlets, and  
10 saturation of flexible-fuel vehicles; and

11 (5) priority consideration to applications that—

12 (A) are most likely to maximize displace-  
13 ment of petroleum consumption, measured as a  
14 total quantity and a percentage;

15 (B) are best able to incorporate existing  
16 infrastructure while maximizing, to the extent  
17 practicable, the use of renewable fuels; and

18 (C) demonstrate the greatest commitment  
19 on the part of the applicant to ensure funding  
20 for the proposed project and the greatest likeli-  
21 hood that the project will be maintained or ex-  
22 panded after Federal assistance under this sec-  
23 tion is completed.

24 (f) COMBINED APPLICATIONS.—States and local gov-  
25 ernment entities and nonprofit entities may apply for as-

1 sistance under this section on behalf of a group of retailers  
2 within a certain geographic area, or to carry out regional  
3 or multistate deployment projects. Any such application  
4 shall certify the availability and details of a program to  
5 match the Federal grant as required under subsection (g)  
6 and list the retail locations that would receive the funds.

7 (g) LIMITATIONS.—Assistance provided under this  
8 section shall not exceed—

9 (1) 33 percent of the estimated cost of the in-  
10 stallation, replacement, or conversion of motor fuel  
11 storage and dispensing infrastructure; or

12 (2) \$180,000 for a combination of equipment at  
13 any one retail outlet location.

14 (h) OPERATION OF RENEWABLE FUEL STATIONS.—  
15 The Secretary shall establish rules that set forth require-  
16 ments for grant recipients under this section that include  
17 providing to the public the renewable fuel, establishing a  
18 marketing plan that informs consumers of the price and  
19 availability of the renewable fuel, clearly labeling the dis-  
20 pensers and related equipment, and providing periodic re-  
21 ports on the status of the renewable fuel sales, the type  
22 and amount of the renewable fuel dispensed at each loca-  
23 tion, and the average price of such fuel.

24 (i) NOTIFICATION REQUIREMENTS.—Not later than  
25 the date on which each renewable fuel station begins to

1 offer renewable fuel to the public, the grant recipient that  
2 used grant funds to construct or upgrade such station  
3 shall notify the Secretary of Energy of such opening. The  
4 Secretary of Energy shall add each new renewable fuel  
5 station to the renewable fuel station locator on its Website  
6 when it receives notification under this subsection.

7 (j) INELIGIBILITY.—No person may receive assist-  
8 ance under this section and receive a credit under section  
9 30C of the Internal Revenue Code of 1986.

10 (k) AUTHORIZATION OF APPROPRIATIONS.—There  
11 are authorized to be appropriated to the Secretary of En-  
12 ergy for carrying out this section \$200,000,000 for each  
13 of the fiscal years 2008 through 2014.

14 (l) RESTRICTION.—No grant shall be provided under  
15 this section to a large, vertically integrated oil company.

16 **SEC. 9302. PROHIBITION ON FRANCHISE AGREEMENT RE-**  
17 **STRICTIONS RELATED TO RENEWABLE FUEL**  
18 **INFRASTRUCTURE.**

19 (a) IN GENERAL.—Title I of the Petroleum Mar-  
20 keting Practices Act (15 U.S.C. 2801 et seq.) is amended  
21 by adding at the end the following:

22 **“SEC. 107. PROHIBITION ON RESTRICTION OF INSTALLA-**  
23 **TION OF RENEWABLE FUEL PUMPS.**

24 “(a) DEFINITION.—In this section:

1           “(1) RENEWABLE FUEL.—The term ‘renewable  
2 fuel’ means any fuel—

3           “(A) at least 85 percent of the volume of  
4 which consists of ethanol; or

5           “(B) any mixture of biodiesel and diesel or  
6 renewable diesel (as defined in regulations  
7 adopted pursuant to section 211(o) of the Clean  
8 Air Act (40 C.F.R., Part 80)), determined with-  
9 out regard to any use of kerosene and con-  
10 taining at least 20 percent biodiesel or renew-  
11 able diesel.

12           “(2) FRANCHISE-RELATED DOCUMENT.—The  
13 term ‘franchise-related document’ means—

14           “(A) a franchise under this Act; and

15           “(B) any other contract or directive of a  
16 franchisor relating to terms or conditions of the  
17 sale of fuel by a franchisee.

18           “(b) PROHIBITIONS.—

19           “(1) IN GENERAL.—No franchise-related docu-  
20 ment entered into or renewed on or after the date  
21 of enactment of this section shall contain any provi-  
22 sion allowing a franchisor to restrict the franchisee  
23 or any affiliate of the franchisee from—

24           “(A) installing on the marketing premises  
25 of the franchisee a renewable fuel pump or

1 tank, except that the franchisee's franchisor  
2 may restrict the installation of a tank on leased  
3 marketing premises of such franchisor;

4 “(B) converting an existing tank or pump  
5 on the marketing premises of the franchisee for  
6 renewable fuel use, so long as such tank or  
7 pump and the piping connecting them are ei-  
8 ther warranted by the manufacturer or certified  
9 by a recognized standards setting organization  
10 to be suitable for use with such renewable fuel;

11 “(C) advertising (including through the  
12 use of signage) the sale of any renewable fuel;

13 “(D) selling renewable fuel in any specified  
14 area on the marketing premises of the  
15 franchisee (including any area in which a name  
16 or logo of a franchisor or any other entity ap-  
17 pears);

18 “(E) purchasing renewable fuel from  
19 sources other than the franchisor if the  
20 franchisor does not offer its own renewable fuel  
21 for sale by the franchisee;

22 “(F) listing renewable fuel availability or  
23 prices, including on service station signs, fuel  
24 dispensers, or light poles; or

1           “(G) allowing for payment of renewable  
2           fuel with a credit card,  
3           so long as such activities described in subparagraphs  
4           (A) through (G) do not constitute mislabeling, mis-  
5           branding, willful adulteration, or other trademark  
6           violations by the franchisee.

7           “(2) EFFECT OF PROVISION.—Nothing in this  
8           section shall be construed to preclude a franchisor  
9           from requiring the franchisee to obtain reasonable  
10          indemnification and insurance policies.

11          “(c) EXCEPTION TO 3-GRADE REQUIREMENT.—No  
12          franchise-related document that requires that 3 grades of  
13          gasoline be sold by the applicable franchisee shall prevent  
14          the franchisee from selling an renewable fuel in lieu of  
15          1, and only 1, grade of gasoline.”.

16          (b) ENFORCEMENT.—Section 105 of the Petroleum  
17          Marketing Practices Act (15 U.S.C. 2805) is amended by  
18          striking “102 or 103” each place it appears and inserting  
19          “102, 103, or 107”.

20          (c) CONFORMING AMENDMENTS.—

21                  (1) IN GENERAL.—Section 101(13) of the Pe-  
22          troleum Marketing Practices Act (15 U.S.C.  
23          2801(13)) is amended by aligning the margin of  
24          subparagraph (C) with subparagraph (B).

1           (2) TABLE OF CONTENTS.—The table of con-  
2           tents of the Petroleum Marketing Practices Act (15  
3           U.S.C. 2801 note) is amended—

4                   (A) by inserting after the item relating to  
5           section 106 the following:

“Sec. 107. Prohibition on restriction of installation of renewable fuel pumps.”;  
and

6                   (B) by striking the item relating to section  
7           202 and inserting the following:

“Sec. 202. Automotive fuel rating testing and disclosure requirements.”.

8   **SEC. 9303. RENEWABLE FUEL DISPENSER REQUIREMENTS.**

9           (a) MARKET PENETRATION REPORTS.—The Sec-  
10          retary of Energy, in consultation with the Secretary of  
11          Transportation, shall determine and report to Congress  
12          annually on the market penetration for flexible-fuel vehi-  
13          cles in use within geographic regions to be established by  
14          the Secretary of Energy.

15          (b) DISPENSER FEASIBILITY STUDY.—Not later  
16          than 24 months after the date of enactment of this Act,  
17          the Secretary of Energy, in consultation with the Depart-  
18          ment of Transportation, shall report to the Congress on  
19          the feasibility of requiring motor fuel retailers to install  
20          E-85 compatible dispensers and related systems at retail  
21          fuel facilities in regions where flexible-fuel vehicle market  
22          penetration has reached 15 percent of motor vehicles. In

1 conducting such study, the Secretary shall consider and  
2 report on the following factors:

3 (1) The commercial availability of E-85 fuel  
4 and the number of competing E-85 wholesale sup-  
5 pliers in a given region.

6 (2) The level of financial assistance provided on  
7 an annual basis by the Federal Government, State  
8 governments, and nonprofit entities for the installa-  
9 tion of E-85 compatible infrastructure.

10 (3) The number of retailers whose retail loca-  
11 tions are unable to support more than 2 under-  
12 ground storage tank dispensers.

13 (4) The expense incurred by retailers in the in-  
14 stallation and sale of E-85 compatible dispensers  
15 and related systems and any potential effects on the  
16 price of motor vehicle fuel.

17 **SEC. 9304. PIPELINE FEASIBILITY STUDY.**

18 (a) IN GENERAL.—The Secretary of Energy, in con-  
19 sultation with the Secretary of Transportation, shall con-  
20 duct a study of the feasibility of the construction of dedi-  
21 cated ethanol pipelines.

22 (b) FACTORS.—In conducting the study, the Sec-  
23 retary shall consider—

24 (1) the quantity of ethanol production that  
25 would make dedicated pipelines economically viable;

1           (2) existing or potential barriers to dedicated  
2 ethanol pipelines, including technical, siting, financ-  
3 ing, and regulatory barriers;

4           (3) market risk (including throughput risk) and  
5 means of mitigating the risk;

6           (4) regulatory, financing, and siting options  
7 that would mitigate risk in those areas and help en-  
8 sure the construction of 1 or more dedicated ethanol  
9 pipelines;

10          (5) financial incentives that may be necessary  
11 for the construction of dedicated ethanol pipelines,  
12 including the return on equity that sponsors of the  
13 initial dedicated ethanol pipelines will require to in-  
14 vest in the pipelines;

15          (6) technical factors that may compromise the  
16 safe transportation of ethanol in pipelines, identi-  
17 fying remedial and preventative measures to ensure  
18 pipeline integrity; and

19          (7) such other factors as the Secretary con-  
20 siders appropriate.

21       (c) REPORT.—Not later than 15 months after the  
22 date of enactment of this Act, the Secretary shall submit  
23 to Congress a report describing the results of the study  
24 conducted under this section.

1 **SEC. 9305. STUDY OF ETHANOL-BLENDED GASOLINE WITH**  
2 **GREATER LEVELS OF ETHANOL.**

3 (a) IN GENERAL.—The Administrator of the Envi-  
4 ronmental Protection Agency, in cooperation with the Sec-  
5 retary of Energy and the Secretary of Transportation, and  
6 after providing notice and an opportunity for public com-  
7 ment, shall conduct a study of the feasibility of widespread  
8 utilization in the United States of ethanol blended gasoline  
9 with levels of ethanol greater than 10 percent.

10 (b) STUDY.—The study under subsection (a) shall in-  
11 clude—

12 (1) a review of production and infrastructure  
13 constraints on increasing the consumption of eth-  
14 anol;

15 (2) an evaluation of the economic, market, and  
16 energy impacts of State and regional differences in  
17 ethanol blends;

18 (3) an evaluation of the economic, market, and  
19 energy impacts on gasoline retailers and consumers  
20 of separate and distinctly labeled fuel storage facili-  
21 ties and dispensers;

22 (4) an evaluation of the environmental impacts  
23 of mid-level ethanol blends on evaporative and ex-  
24 haust emissions from on-road, off-road and marine  
25 engines, recreational boats, vehicles, and equipment;

1           (5) an evaluation of the impacts of mid-level  
2 ethanol blends on the operation, durability, and per-  
3 formance of on-road, off-road, and marine engines,  
4 recreational boats, vehicles, and equipment; and

5           (6) an evaluation of the safety impacts of mid-  
6 level ethanol blends on consumers that own and op-  
7 erate off-road and marine engines, recreational  
8 boats, vehicles, or equipment.

9           (c) REPORT.—Not later than 24 months after the  
10 date of enactment of this Act, the Administrator shall sub-  
11 mit to the Committee on Energy and Commerce of the  
12 House of Representatives and the Committee on Environ-  
13 ment and Public Works of the Senate a report describing  
14 the results of the study conducted under this section.

15           (d) AUTHORIZATION OF APPROPRIATIONS.—There  
16 are authorized to be appropriated to the Administrator  
17 such sums as may be necessary for the completion of the  
18 study required under this section.

19 **SEC. 9306. STUDY OF THE ADEQUACY OF RAILROAD TRANS-**  
20 **PORTATION OF DOMESTICALLY-PRODUCED**  
21 **RENEWABLE FUEL.**

22           (a) STUDY.—

23           (1) IN GENERAL.—The Secretary of Energy, in  
24 consultation with the Secretary of Transportation,  
25 shall conduct a study of the adequacy of railroad

1 transportation of domestically-produced renewable  
2 fuel.

3 (2) COMPONENTS.—In conducting the study  
4 under paragraph (1), the Secretary shall consider—

5 (A) the adequacy of, and appropriate loca-  
6 tion for, tracks that have sufficient capacity,  
7 and are in the appropriate condition, to move  
8 the necessary quantities of domestically-pro-  
9 duced renewable fuel;

10 (B) the adequacy of the supply of railroad  
11 tank cars, locomotives, and rail crews to move  
12 the necessary quantities of domestically-pro-  
13 duced renewable fuel in a timely fashion;

14 (C)(i) the projected costs of moving the do-  
15 mestically-produced renewable fuel using rail-  
16 road transportation; and

17 (ii) the impact of the projected costs on  
18 the marketability of the domestically-produced  
19 renewable fuel;

20 (D) whether there is adequate railroad  
21 competition to ensure—

22 (i) a fair price for the railroad trans-  
23 portation of domestically-produced renew-  
24 able fuel; and

1 (ii) acceptable levels of service for rail-  
2 road transportation of domestically-pro-  
3 duced renewable fuel;

4 (E) any rail infrastructure capital costs  
5 that the railroads indicate should be paid by the  
6 producers or distributors of domestically-pro-  
7 duced renewable fuel;

8 (F) whether Federal agencies have ade-  
9 quate legal authority to ensure a fair and rea-  
10 sonable transportation price and acceptable lev-  
11 els of service in cases in which the domestically-  
12 produced renewable fuel source does not have  
13 access to competitive rail service;

14 (G) whether Federal agencies have ade-  
15 quate legal authority to address railroad service  
16 problems that may be resulting in inadequate  
17 supplies of domestically-produced renewable fuel  
18 in any area of the United States; and

19 (H) any recommendations for any addi-  
20 tional legal authorities for Federal agencies to  
21 ensure the reliable railroad transportation of  
22 adequate supplies of domestically-produced re-  
23 newable fuel at reasonable prices.

24 (b) REPORT.—Not later than 180 days after the date  
25 of enactment of this Act, the Secretary shall submit to

1 the Committee on Energy and Natural Resources of the  
2 Senate and the Committee on Energy and Commerce of  
3 the House of Representatives a report that describes the  
4 results of the study conducted under subsection (a).

5 **SEC. 9307. STANDARD SPECIFICATIONS FOR BIODIESEL.**

6 Section 211 of the Clean Air Act (42 U.S.C. 7545)  
7 is amended by redesignating subsection (s) as subsection  
8 (t), redesignating subsection (r) (relating to conversion as-  
9 sistance for cellulosic biomass, waste-derived ethanol, ap-  
10 proved renewable fuels) as subsection (s) and by adding  
11 the following new subsection at the end thereof:

12 “(u) STANDARD SPECIFICATIONS FOR BIODIESEL.—  
13 Unless the American Society for Testing and Materials  
14 has adopted a standard for diesel fuel containing 20 per-  
15 cent biodiesel, not later than 1 year after the date of en-  
16 actment of this subsection, the Administrator shall initiate  
17 a rulemaking establishing a series of uniform per gallon  
18 fuel standards for categories of fuels that contain bio-  
19 diesel, including one standard for fuel containing 20 per-  
20 cent biodiesel, and designate an identification number for  
21 fuel meeting each standard in each such category so that  
22 vehicle manufacturers are able to design engines to use  
23 fuel meeting one or more of such standards. The Adminis-  
24 trator shall finalize the standards under this subsection

1 18 months after the date of the enactment of this sub-  
2 section.”.

3 **SEC. 9308. GRANTS FOR CELLULOSIC ETHANOL PRODUC-**  
4 **TION.**

5 Subsection (s) of section 211 of the Clean Air Act  
6 (as added by section 1512 of the Energy Policy Act of  
7 2005) (and as redesignated by section 9307 of this Act),  
8 relating to conversion assistance for cellulosic biomass,  
9 waste-derived ethanol, and approved renewable fuels, is  
10 amended as follows:

11 (1) By adding the following new subparagraphs  
12 at the end of paragraph (3):

13 “(D) \$500,000,000 for fiscal year 2009.

14 “(E) \$500,000,000 for fiscal year 2010.”.

15 (2) By adding the following new paragraph at  
16 the end thereof:

17 “(5) CRITERIA.—In awarding grants under this  
18 section, the Secretary shall give priority to applica-  
19 tions that promote feedstock diversity and the geo-  
20 graphic dispersion of production facilities.”.

21 **SEC. 9309. CONSUMER EDUCATION CAMPAIGN RELATING**  
22 **TO FLEXIBLE-FUEL VEHICLES.**

23 The Secretary of Transportation, in consultation with  
24 the Secretary of Energy, shall carry out an education pro-  
25 gram to inform consumers about which motor vehicles are

1 flexible-fuel vehicles and how to exercise their opportunity  
2 to choose E85 or B20. As part of such program, the Sec-  
3 retary of Transportation may coordinate with motor vehi-  
4 cle manufacturers to notify owners of flexible-fuel vehicles  
5 of locations where E85 and B20 are sold in their area.

6 **SEC. 9310. REVIEW OF NEW RENEWABLE FUELS OR NEW**  
7 **RENEWABLE FUEL ADDITIVES.**

8 Notwithstanding any other provision of law, a waiver  
9 under section 211(f)(4) of the Clean Air Act for any re-  
10 newable fuel or renewable fuel additive shall not be consid-  
11 ered granted unless the Administrator of the Environment  
12 Protection Agency, following a public notice and comment  
13 period, takes final action granting the application for a  
14 waiver based on an application of the section 211(f)(4)  
15 standards and criteria with respect to emissions control  
16 devices or systems and vehicle emissions standards to on-  
17 road and non-road engines and vehicles. The Adminis-  
18 trator shall take final action on an application for a waiver  
19 no later than 270 days after the Administrator receives  
20 the application.

21 **SEC. 9311. DOMESTIC MANUFACTURING CONVERSION**  
22 **GRANT PROGRAM.**

23 Section 712 of the Energy Policy Act of 2005 (42  
24 U.S.C. 16062) is amended—

25 (1) in subsection (a)—

1 (A) by inserting “, flexible-fuel,” after  
2 “production of efficient hybrid”; and

3 (B) by adding at the end the following:  
4 “Priority shall be given to the refurbishment or  
5 retooling of manufacturing facilities that have  
6 recently ceased operation or will cease operation  
7 in the near future.”; and

8 (2) by striking subsection (b) and inserting the  
9 following:

10 “(b) COORDINATION WITH STATE AND LOCAL PRO-  
11 GRAMS.—The Secretary may coordinate implementation of  
12 this section with State and local programs designed to ac-  
13 complish similar goals, including the retention and retrain-  
14 ing of skilled workers from the such manufacturing facili-  
15 ties, including by establishing matching grant arrange-  
16 ments.

17 “(c) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to the Secretary such  
19 sums as may be necessary to carry out this section.”.

20 **SEC. 9312. CELLULOSIC ETHANOL AND BIOFUELS RE-**  
21 **SEARCH.**

22 There are authorized to be appropriated to the Sec-  
23 retary of Energy \$50,000,000 for fiscal year 2008, to re-  
24 main available until expended, for cellulosic ethanol and  
25 biofuels research and development grants to 10 entities

1 from among 1890 land grant colleges, Historically Black  
2 Colleges or Universities, Tribal serving institutions, or  
3 Hispanic serving institutions, selected by the Secretary of  
4 Energy to receive a grant under this section through a  
5 peer-reviewed competitive process. The selected entities  
6 shall then collaborate with one of the Department of Ener-  
7 gy's Office of Science Bioenergy Research Centers.

8 **SEC. 9313. FEDERAL FLEET FUELING CENTERS.**

9 (a) IN GENERAL.—Not later than January 1, 2010,  
10 the head of each Federal agency shall install at least 1  
11 renewable fuel pump at each Federal fleet fueling center  
12 in the United States under the jurisdiction of the head  
13 of the Federal agency.

14 (b) REPORT.—Not later than October 31 of the first  
15 calendar year beginning after the date of the enactment  
16 of this Act, and each October 31 thereafter, the President  
17 shall submit to Congress a report that describes the  
18 progress toward complying with subsection (a), including  
19 identifying—

20 (1) the number of Federal fleet fueling centers  
21 that contain at least 1 renewable fuel pump; and

22 (2) the number of Federal fleet fueling centers  
23 that do not contain any renewable fuel pumps.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated such sums as are nec-  
3 essary to carry out this section.

4 **SEC. 9314. STUDY OF IMPACT OF INCREASED RENEWABLE**  
5 **FUEL USE.**

6 (a) IN GENERAL.—The Secretary of Energy shall,  
7 after consultation with the Administrator of the Environ-  
8 mental Protection Agency, the Administrator of the En-  
9 ergy Information Administration, and the Secretary of Ag-  
10 riculture, conduct a study to assess the impact of in-  
11 creased use of renewable fuels on the United States econ-  
12 omy. The Secretary shall enter into an arrangement with  
13 the National Academy of Sciences to provide peer review  
14 of the study.

15 (b) STUDY ELEMENTS.—The study shall analyze, in  
16 terms of renewable fuels, the following:

17 (1) The impact of the use of renewable fuels on  
18 the energy security of the United States.

19 (2) The impact of the use of renewable fuels on  
20 public health and the environment, including air and  
21 water quality.

22 (3) The impact of renewable fuels on the infra-  
23 structure of the United States, including the deliver-  
24 ability of materials, goods, and products other than  
25 alternative fuels.

1           (4) The impact of the use of renewable fuels on  
2           job creation, the price and supply of agricultural  
3           commodities, and rural economic development.

4           (c) PARTICIPATION.—In conducting the study under  
5           this section, the Secretary and other agencies shall seek  
6           the participation, and consider the input, of the following:

7           (1) Producers of feed grains.

8           (2) Producers of livestock, poultry, and pork  
9           products.

10          (3) Producers of energy.

11          (4) Individuals and entities interested in issues  
12          relating to conservation, the environment, and nutri-  
13          tion, and users of renewable fuels.

14          (d) REPORT.—The Secretary shall submit a report  
15          to the Congress containing the initial results of the study  
16          under this section not later than 2 years after enactment  
17          of this Act and subsequently supplement and update such  
18          report every 3 years thereafter.

19       **SEC. 9315. GRANTS FOR RENEWABLE FUEL PRODUCTION**  
20                               **RESEARCH AND DEVELOPMENT IN CERTAIN**  
21                               **STATES.**

22          (a) IN GENERAL.—The Secretary shall provide  
23          grants to eligible entities to conduct research into, and de-  
24          velop and implement, renewable fuel production tech-  
25          nologies in States with low rates of ethanol production,

1 including low rates of production of cellulosic biomass eth-  
2 anol, as determined by the Secretary.

3 (b) ELIGIBILITY.—To be eligible to receive a grant  
4 under the section, an entity shall—

5 (1)(A) be an institution of higher education (as  
6 defined in section 2 of the Energy Policy Act of  
7 2005 (42 U.S.C. 15801)) located in a State de-  
8 scribed in subsection (a);

9 (B) be an institution—

10 (i) referred to in section 532 of the Equity  
11 in Educational Land-Grant Status Act of 1994  
12 (Public Law 103–382; 7 U.S.C. 301 note);

13 (ii) that is eligible for a grant under the  
14 Tribally Controlled College or University Assist-  
15 ance Act of 1978 (25 U.S.C. 1801 et seq.), in-  
16 cluding Dine College; or

17 (iii) that is eligible for a grant under the  
18 Navajo Community College Act (25 U.S.C.  
19 640a et seq.); or

20 (C) be a consortium of such institutions of  
21 higher education, industry, State agencies, Indian  
22 tribal agencies, or local government agencies located  
23 in the State; and

24 (2) have proven experience and capabilities with  
25 relevant technologies.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to carry out this section  
3 \$25,000,000 for each of fiscal years 2008 through 2010.

4 **SEC. 9316. STUDY OF EFFECT OF OIL PRICES.**

5 The Secretary of Energy shall conduct a study to re-  
6 view the anticipated effects on renewable fuels production  
7 if oil were priced no lower than \$40 per barrel. The Sec-  
8 retary shall report the findings of such study to Congress  
9 by December 31, 2008.

10 **SEC. 9317. BIODIESEL AS ALTERNATIVE FUEL FOR CAFÉ**  
11 **PURPOSES.**

12 Section 32901(a) of title 49, United States Code, is  
13 amended—

14 (1) in paragraph (1), by redesignating subpara-  
15 graphs (J) and (K) as subparagraphs (K) and (L),  
16 respectively, and inserting after subparagraph (I)  
17 the following:

18 “(J) B20 biodiesel blend;” and

19 (2) by redesignating paragraphs (7) through  
20 (16) as paragraphs (9) through (18), respectively,  
21 and insert after paragraph (6) the following:

22 “(7) ‘biodiesel’ means the monoalkyl esters of  
23 long chain fatty acids derived from plant or animal  
24 matter which meet—



1 Organization of Petroleum Exporting Countries  
2 (OPEC);

3 (3) revenues from the sale of oil by some of  
4 these countries directly or indirectly provide funding  
5 for terrorism and propaganda hostile to the values  
6 of the United States and the West;

7 (4) in the past, these countries have manipu-  
8 lated the dependence of the United States on the oil  
9 supplies of these countries to exert undue influence  
10 on United States policy, as during the embargo of  
11 OPEC during 1973 on the sale of oil to the United  
12 States, which became a major factor in the ensuing  
13 recession;

14 (5) research by the Energy Information Admin-  
15 istration of the Department of Energy has shown  
16 that the dependence of the United States on foreign  
17 oil will increase by 33 percent over the next 20  
18 years;

19 (6) a rise in the price of imported oil sufficient  
20 to increase gasoline prices by 10 cents per gallon at  
21 the pump would result in an additional outflow of  
22 \$18,000,000,000 from the United States to oil-ex-  
23 porting nations;

24 (7) for economic and national security reasons,  
25 the United States should reduce, as soon as prac-

1        ticable, the dependence of the United States on na-  
2        tions that do not share the interests and values of  
3        the United States;

4            (8) the State of Israel has been a steadfast ally  
5        and a close friend of the United States since the cre-  
6        ation of Israel in 1948;

7            (9) like the United States, Israel is a democracy  
8        that holds civil rights and liberties in the highest re-  
9        gard and is a proponent of the democratic values of  
10       peace, freedom, and justice;

11           (10) cooperation between the United States and  
12        Israel on such projects as the development of the  
13        Arrow Missile has resulted in mutual benefits to  
14        United States and Israeli security;

15           (11) the special relationship between Israel and  
16        the United States has been and continues to be  
17        manifested in a variety of jointly-funded cooperative  
18        programs in the field of scientific research and de-  
19        velopment, such as—

20            (A) the United States-Israel Binational  
21        Science Foundation (BSF);

22            (B) the Israel-United States Binational  
23        Agricultural Research and Development Fund  
24        (BARD); and

1 (C) the Israel-United States Binational In-  
2 dustrial Research and Development (BIRD)  
3 Foundation;

4 (12) these programs, supported by the match-  
5 ing contributions from the Government of Israel and  
6 the Government of the United States and directed  
7 by key scientists and academics from both countries,  
8 have made possible many scientific breakthroughs in  
9 the fields of life sciences, medicine, bioengineering,  
10 agriculture, biotechnology, communications, and oth-  
11 ers;

12 (13) on February 1, 1996, United States Sec-  
13 retary of Energy Hazel R. O’Leary and Israeli Min-  
14 ister of Energy and Infrastructure Gonen Segev  
15 signed the Agreement Between the Department of  
16 Energy of the United States of America and the  
17 Ministry of Energy and Infrastructure of Israel Con-  
18 cerning Energy Cooperation, to establish a frame-  
19 work for collaboration between the United States  
20 and Israel in energy research and development ac-  
21 tivities;

22 (14) the United States and Israeli governments  
23 should promote cooperation in a broad range of  
24 projects designed to enhance supplies of nonpetro-

1 leum energy for both countries, and to provide for  
2 cutting edge research in each country;

3 (15) Israeli scientists and researchers have long  
4 been at the forefront of research and development in  
5 the field of alternative renewable energy sources;

6 (16) many of the top corporations of the world  
7 have recognized the technological and scientific ex-  
8 pertise of Israel by locating important research and  
9 development facilities in Israel;

10 (17) among the technological breakthroughs  
11 made by Israeli scientists and researchers in the  
12 field of alternative, renewable energy sources are—

13 (A) the development of a cathode that uses  
14 hexavalent iron salts that accept 3 electrons per  
15 ion and enable rechargeable batteries to provide  
16 3 times as much electricity as existing recharge-  
17 able batteries;

18 (B) the development of a technique that  
19 vastly increases the efficiency of using solar en-  
20 ergy to generate hydrogen for use in energy  
21 cells; and

22 (C) the development of a novel membrane  
23 used in new and powerful direct-oxidant fuel  
24 cells that is capable of competing favorably with

1 hydrogen fuel cells and traditional internal com-  
2 bustion engines; and

3 (18) cooperation between the United States and  
4 Israel in the field of research and development of al-  
5 ternative renewable energy sources would be in the  
6 interests of both countries, and both countries stand  
7 to gain much from such cooperation.

8 **SEC. 9323. GRANT PROGRAM.**

9 (a) **AUTHORITY.**—Pursuant to the responsibilities de-  
10 scribed in section 102(10), (14), and (17) of the Depart-  
11 ment of Energy Organization Act (42 U.S.C. 7112(10),  
12 (14), and (17)) and section 103(9) of the Energy Reorga-  
13 nization Act of 1974 (42 U.S.C. 5813(9)), the Secretary,  
14 in consultation with the BIRD or BSF, shall award grants  
15 to eligible entities.

16 (b) **APPLICATION.**—

17 (1) **SUBMISSION OF APPLICATIONS.**—To receive  
18 a grant under this section, an eligible entity shall  
19 submit an application to the Secretary containing  
20 such information and assurances as the Secretary, in  
21 consultation with the BIRD or BSF, may require.

22 (2) **SELECTION OF ELIGIBLE ENTITIES.**—The  
23 Secretary, in consultation with the Directors of the  
24 BIRD and BSF, may review any application sub-  
25 mitted by any eligible entity and select any eligible

1       entity meeting criteria established by the Secretary,  
2       in consultation with the Advisory Board, for a grant  
3       under this section.

4       (c) AMOUNT OF GRANT.—The amount of each grant  
5       awarded for a fiscal year under this section shall be deter-  
6       mined by the Secretary, in consultation with the BIRD  
7       or BSF.

8       (d) RECOUPMENT.—

9           (1) IN GENERAL.—Not later than 180 days  
10       after the date of enactment of this Act, the Sec-  
11       retary shall establish procedures and criteria for  
12       recoupment in connection with any eligible project  
13       carried out by an eligible entity that receives a grant  
14       under this section, which has led to the development  
15       of a product or process which is marketed or used.

16       (2) AMOUNT REQUIRED.—

17           (A) Except as provided in subparagraph  
18       (B), such recoupment shall be required as a  
19       condition for award and be proportional to the  
20       Federal share of the costs of such project, and  
21       shall be derived from the proceeds of royalties  
22       or licensing fees received in connection with  
23       such product or process.

24           (B) In the case where a product or process  
25       is used by the recipient of a grant under this

1 section for the production and sale of its own  
2 products or processes, the recoupment shall  
3 consist of a payment equivalent to the payment  
4 which would be made under subparagraph (A).

5 (3) WAIVER.—The Secretary may at any time  
6 waive or defer all or some of the recoupment re-  
7 quirements of this subsection as necessary, depend-  
8 ing on—

9 (A) the commercial competitiveness of the  
10 entity or entities developing or using the prod-  
11 uct or process;

12 (B) the profitability of the project; and

13 (C) the commercial viability of the product  
14 or process utilized.

15 (e) PRIVATE FUNDS.—The Secretary may accept  
16 contributions of funds from private sources to carry out  
17 this part.

18 (f) OFFICE OF ENERGY EFFICIENCY AND RENEW-  
19 ABLE ENERGY.—The Secretary shall carry out this sec-  
20 tion through the existing programs at the Office of Energy  
21 Efficiency and Renewable Energy.

22 (g) REPORT.—Not later than 180 days after receiv-  
23 ing a grant under this section, each recipient shall submit  
24 a report to the Secretary—

1           (1) documenting how the recipient used the  
2 grant funds; and

3           (2) evaluating the level of success of each  
4 project funded by the grant.

5 **SEC. 9324. INTERNATIONAL ENERGY ADVISORY BOARD.**

6           (a) ESTABLISHMENT.—There is established in the  
7 Department of Energy an International Energy Advisory  
8 Board.

9           (b) DUTIES.—The Advisory Board shall advise the  
10 Secretary on—

11           (1) criteria for the recipients of grants awarded  
12 under section 9323(a);

13           (2) the total amount of grant money to be  
14 awarded to all grantees selected by the Secretary, in  
15 consultation with the BIRD; and

16           (3) the total amount of grant money to be  
17 awarded to all grantees selected by the Secretary, in  
18 consultation with the BSF, for each fiscal year.

19           (c) MEMBERSHIP.—

20           (1) COMPOSITION.—The Advisory Board shall  
21 be composed of—

22           (A) 1 member appointed by the Secretary  
23 of Commerce;

24           (B) 1 member appointed by the Secretary  
25 of Energy; and

1           (C) 2 members who shall be Israeli citi-  
2           zens, appointed by the Secretary of Energy  
3           after consultation with appropriate officials in  
4           the Israeli Government.

5           (2) DEADLINE FOR APPOINTMENTS.—The ini-  
6           tial appointments under paragraph (1) shall be  
7           made not later than 60 days after the date of enact-  
8           ment of this Act.

9           (3) TERM.—Each member of the Advisory  
10          Board shall be appointed for a term of 4 years.

11          (4) VACANCIES.—A vacancy on the Advisory  
12          Board shall be filled in the manner in which the  
13          original appointment was made.

14          (5) BASIC PAY.—

15                (A) COMPENSATION.—A member of the  
16                Advisory Board shall serve without pay.

17                (B) TRAVEL EXPENSES.—Each member of  
18                the Advisory Board shall receive travel ex-  
19                penses, including per diem in lieu of subsist-  
20                ence, in accordance with applicable provisions of  
21                subchapter I of chapter 57 of title 5, United  
22                States Code.

23          (6) QUORUM.—Three members of the Advisory  
24          Board shall constitute a quorum.

1           (7) CHAIRPERSON.—The Chairperson of the  
2           Advisory Board shall be designated by the Secretary  
3           of Energy at the time of the appointment.

4           (8) MEETINGS.—The Advisory Board shall  
5           meet at least once annually at the call of the Chair-  
6           person.

7           (d) TERMINATION.—Section 14(a)(2)(B) of the Fed-  
8           eral Advisory Committee Act (5 U.S.C. App.) shall not  
9           apply to the Advisory Board.

10 **SEC. 9325. DEFINITIONS.**

11           In this part:

12           (1) ADVISORY BOARD.—The term “Advisory  
13           Board” means the International Energy Advisory  
14           Board established by section 9324(a).

15           (2) BIRD.—The term “BIRD” means the  
16           Israel-United States Binational Industrial Research  
17           and Development Foundation.

18           (3) BSF.—The term “BSF” means the United  
19           States-Israel Binational Science Foundation.

20           (4) ELIGIBLE ENTITY.—The term “eligible enti-  
21           ty” means a joint venture comprised of both Israeli  
22           and United States private business entities or a joint  
23           venture comprised of both Israeli academic persons  
24           (who reside and work in Israel) and United States  
25           academic persons, that—

1 (A) carries out an eligible project; and

2 (B) is selected by the Secretary, in con-  
3 sultation with the BIRD or BSF, using the cri-  
4 teria established by the Secretary, in consulta-  
5 tion with the Advisory Board.

6 (5) **ELIGIBLE PROJECT.**—The term “eligible  
7 project” means a project to encourage cooperation  
8 between the United States and Israel on research,  
9 development, or commercialization of alternative en-  
10 ergy, improved energy efficiency, or renewable en-  
11 ergy sources.

12 (6) **SECRETARY.**—The term “Secretary” means  
13 the Secretary of Energy, acting through the Assist-  
14 ant Secretary of Energy for Energy Efficiency and  
15 Renewable Energy.

16 **SEC. 9326. TERMINATION.**

17 The grant program authorized under section 9323  
18 and the Advisory Board shall terminate upon the expira-  
19 tion of the 7-year period which begins on the date of the  
20 enactment of this Act.

21 **SEC. 9327. AUTHORIZATION OF APPROPRIATIONS.**

22 The Secretary is authorized to expend not more than  
23 \$20,000,000 to carry out this part for each of fiscal years  
24 2008 through 2014 from funds previously authorized to  
25 the Office of Energy Efficiency and Renewable Energy.

1 **SEC. 9328. CONSTITUTIONAL AUTHORITY.**

2       The Constitutional authority on which this part rests  
3 is the power of Congress to regulate commerce with for-  
4 eign nations as enumerated in Article I, Section 8 of the  
5 United States Constitution.

6       **Subtitle E—Advanced Plug-In**  
7       **Hybrid Vehicles and Components**

8 **SEC. 9401. ADVANCED BATTERY LOAN GUARANTEE PRO-**  
9       **GRAM.**

10       (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
11 of Energy shall establish a program to provide guarantees  
12 of loans by private institutions for the construction of fa-  
13 cilities for the manufacture of advanced vehicle batteries  
14 and battery systems that are developed and produced in  
15 the United States, including advanced lithium ion bat-  
16 teries and hybrid electrical system and component manu-  
17 facturers and software designers.

18       (b) REQUIREMENTS.—The Secretary may provide a  
19 loan guarantee under subsection (a) to an applicant if—

20               (1) without a loan guarantee, credit is not  
21 available to the applicant under reasonable terms or  
22 conditions sufficient to finance the construction of a  
23 facility described in subsection (a);

24               (2) the prospective earning power of the appli-  
25 cant and the character and value of the security  
26 pledged provide a reasonable assurance of repayment

1 of the loan to be guaranteed in accordance with the  
2 terms of the loan; and

3 (3) the loan bears interest at a rate determined  
4 by the Secretary to be reasonable, taking into ac-  
5 count the current average yield on outstanding obli-  
6 gations of the United States with remaining periods  
7 of maturity comparable to the maturity of the loan.

8 (c) CRITERIA.—In selecting recipients of loan guar-  
9 antees from among applicants, the Secretary shall give  
10 preference to proposals that—

11 (1) meet all applicable Federal and State per-  
12 mitting requirements;

13 (2) are most likely to be successful; and

14 (3) are located in local markets that have the  
15 greatest need for the facility.

16 (d) MATURITY.—A loan guaranteed under subsection  
17 (a) shall have a maturity of not more than 20 years.

18 (e) TERMS AND CONDITIONS.—The loan agreement  
19 for a loan guaranteed under subsection (a) shall provide  
20 that no provision of the loan agreement may be amended  
21 or waived without the consent of the Secretary.

22 (f) ASSURANCE OF REPAYMENT.—The Secretary  
23 shall require that an applicant for a loan guarantee under  
24 subsection (a) provide an assurance of repayment in the  
25 form of a performance bond, insurance, collateral, or other

1 means acceptable to the Secretary in an amount equal to  
2 not less than 20 percent of the amount of the loan.

3 (g) GUARANTEE FEE.—The recipient of a loan guar-  
4 antee under subsection (a) shall pay the Secretary an  
5 amount determined by the Secretary to be sufficient to  
6 cover the administrative costs of the Secretary relating to  
7 the loan guarantee.

8 (h) FULL FAITH AND CREDIT.—The full faith and  
9 credit of the United States is pledged to the payment of  
10 all guarantees made under this section. Any such guar-  
11 antee made by the Secretary shall be conclusive evidence  
12 of the eligibility of the loan for the guarantee with respect  
13 to principal and interest. The validity of the guarantee  
14 shall be incontestable in the hands of a holder of the guar-  
15 anteed loan.

16 (i) REPORTS.—Until each guaranteed loan under this  
17 section has been repaid in full, the Secretary shall annu-  
18 ally submit to Congress a report on the activities of the  
19 Secretary under this section.

20 (j) AUTHORIZATION OF APPROPRIATIONS.—There  
21 are authorized to be appropriated such sums as are nec-  
22 essary to carry out this section.

23 (k) TERMINATION OF AUTHORITY.—The authority of  
24 the Secretary to issue a loan guarantee under subsection

1 (a) terminates on the date that is 10 years after the date  
2 of enactment of this Act.

3 **SEC. 9402. DOMESTIC MANUFACTURING CONVERSION**  
4 **GRANT PROGRAM.**

5 Section 712 of the Energy Policy Act of 2005 (42  
6 U.S.C. 16062) is amended—

7 (1) in subsection (a)—

8 (A) by inserting “and components thereof”  
9 after “sales of efficient hybrid and advanced  
10 diesel vehicles”;

11 (B) by inserting “and hybrid component  
12 manufacturers” after “grants to automobile  
13 manufacturers”;

14 (C) by inserting “, plug-in electric hybrid,”  
15 after “production of efficient hybrid”;

16 (D) by inserting “and suppliers” after  
17 “automobile manufacturers”; and

18 (E) by adding at the end the following:  
19 “Priority shall be given to the refurbishment or  
20 retooling of manufacturing facilities that have  
21 recently ceased operation or will cease operation  
22 in the near future.”; and

23 (2) by striking subsection (b) and inserting the  
24 following:

1       “(b) COORDINATION WITH STATE AND LOCAL PRO-  
2 GRAMS.—The Secretary may coordinate implementation of  
3 this section with State and local programs designed to ac-  
4 complish similar goals, including the retention and retrain-  
5 ing of skilled workers from the such manufacturing facili-  
6 ties, including by establishing matching grant arrange-  
7 ments.

8       “(c) AUTHORIZATION OF APPROPRIATIONS.—There  
9 are authorized to be appropriated to the Secretary such  
10 sums as may be necessary to carry out this section.”.

11 **SEC. 9403. PLUG-IN HYBRID VEHICLE PROGRAM.**

12       (a) PLUG-IN ELECTRIC DRIVE VEHICLE PRO-  
13 GRAM.—

14           (1) ESTABLISHMENT.—The Secretary of En-  
15 ergy (in this section referred to as the “Secretary”)  
16 shall establish a competitive program to provide  
17 grants on a cost-shared basis to State governments,  
18 local governments, metropolitan transportation au-  
19 thorities, air pollution control districts, private or  
20 nonprofit entities or combinations thereof, to carry  
21 out a project or projects to encourage the use of  
22 plug-in electric drive vehicles or other emerging elec-  
23 tric vehicle technologies, as determined by the Sec-  
24 retary.

1           (2) ADMINISTRATION.—The Secretary shall es-  
2           tablish requirements for applications for grants  
3           under this section, including reporting of data to be  
4           summarized for dissemination to the Department,  
5           other grantees, and the public, including vehicle and  
6           component performance and vehicle and component  
7           life cycle costs.

8           (3) SELECTION CRITERIA.—

9           (A) PRIORITY.—When making awards  
10           under this subsection, the Secretary shall give  
11           priority consideration to applications that en-  
12           courage early widespread utilization of such ve-  
13           hicles and are likely to make a significant con-  
14           tribution to the advancement of the production  
15           of such vehicles in the United States.

16           (B) SCOPE OF PROGRAMS.—When making  
17           awards under this subsection, the Secretary  
18           shall ensure that the programs will maximize  
19           diversity in applications, manufacturers, end-  
20           uses and vehicle control systems.

21           (4) AUTHORIZATIONS OF APPROPRIATIONS.—

22           There are authorized to be appropriated to the Sec-  
23           retary to carry out the program under this sub-  
24           section, such sums as may be necessary.

1           (5) CERTAIN APPLICANTS.—A battery manufac-  
2           turer that proposes to supply to an applicant for a  
3           grant under this section a battery with a capacity of  
4           greater than 1 kilowatt-hour for use in a plug-in  
5           electric drive vehicle shall—

6                   (A) ensure that the applicant includes in  
7                   the application a description of the price of the  
8                   battery per kilowatt hour;

9                   (B) on approval by the Secretary of the  
10                  application, publish, or permit the Secretary to  
11                  publish, the price described in subparagraph  
12                  (A); and

13                  (C) for any order received by the battery  
14                  manufacturer for at least 1,000 batteries, offer  
15                  batteries at that price.

16       (b) ELECTRIC DRIVE EDUCATION PROGRAM.—

17           (1) IN GENERAL.—The Secretary shall develop  
18           a nationwide electric drive transportation education  
19           program under which the Secretary shall provide—

20                   (A) teaching materials to secondary schools  
21                   and high schools; and

22                   (B) assistance for programs relating to  
23                   electric drive system and component engineer-  
24                   ing to institutions of higher education.

1           (2) **ELECTRIC VEHICLE COMPETITION.**—The  
2 program established under paragraph (1) shall in-  
3 clude a plug-in hybrid electric vehicle competition for  
4 institutions of higher education, which shall be  
5 known as the “Dr. Andrew Frank Plug-In Hybrid  
6 Electric Vehicle Competition”.

7           (3) **ENGINEERS.**—In carrying out the program  
8 established under paragraph (1), the Secretary shall  
9 provide financial assistance to institutions of higher  
10 education to create new, or support existing, degree  
11 programs to ensure the availability of trained elec-  
12 trical and mechanical engineers with the skills nec-  
13 essary for the advancement of—

14                   (A) plug-in electric drive vehicles; and

15                   (B) other forms of electric drive vehicles.

16           (4) **AUTHORIZATION OF APPROPRIATIONS.**—  
17 There are authorized to be appropriated to the Sec-  
18 retary to carry out this subsection such sums as may  
19 be necessary.

20 **SEC. 9404. PLUG-IN HYBRID DEMONSTRATION VEHICLES.**

21           (a) **IN GENERAL.**—The Secretary of Energy shall es-  
22 tablish a program to make grants to owners of domestic  
23 motor vehicle manufacturing or production facilities for  
24 the production of plug-in hybrid electric motors or conver-

1 sion modules to be used as electricity storage capacity for  
2 utilities.

3 (b) PROGRAMS.—The Secretary of Energy shall es-  
4 tablish programs to determine how to best integrate plug-  
5 in hybrid vehicles into the electric power grid and into the  
6 overall electricity infrastructure. These programs shall be  
7 conducted in 5 separate regions across the United States  
8 at the discretion of the Secretary.

9 (c) PILOT PROGRAMS.—The Secretary shall establish  
10 during the first 6 months of 2008, with other govern-  
11 mental entities, no less than 5 separate pilot programs to  
12 convert at least 1000 vehicles in each program to plug-  
13 hybrid electric vehicles.

14 (d) FEDERAL CONTRIBUTION.—The Department of  
15 Energy shall contribute up to 50 percent of the cost of  
16 conversion modules.

17 (e) INSTALLATION.—Installations of electricity stor-  
18 age devices shall be undertaken by trained and certified  
19 mechanics.

20 (f) MONITORING.—The Secretary of Energy shall re-  
21 quire the monitoring of reliability, efficiency, breakeven  
22 costs, and customer satisfaction for a period of 3 years.

23 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
24 are authorized to be appropriated to the Secretary such  
25 sums as may be necessary to carry out this section.

1 **SEC. 9405. INCENTIVE FOR FEDERAL AND STATE FLEETS**  
2 **FOR MEDIUM AND HEAVY DUTY HYBRIDS.**

3 Section 301 of the Energy Policy Act of 1992 (42  
4 U.S.C. 13211) is amended—

5 (1) in paragraph (3), by striking “or a dual  
6 fueled vehicle” and inserting “, a dual fueled vehicle,  
7 or a medium or heavy duty vehicle that is a hybrid  
8 vehicle”;

9 (2) by redesignating paragraphs (11), (12),  
10 (13), and (14) as paragraphs (12), (14), (15), and  
11 (16), respectively;

12 (3) by inserting after paragraph (10) the fol-  
13 lowing new paragraph:

14 “(11) the term ‘hybrid vehicle’ means a vehicle  
15 powered both by a diesel or gasoline engine and an  
16 electric motor or hydraulic energy storage device  
17 that is recharged as the vehicle operates;” and

18 (4) by inserting after paragraph (12) (as so re-  
19 designated by paragraph (2) of this section) the fol-  
20 lowing new paragraph:

21 “(13) the term ‘medium or heavy duty vehicle’  
22 means a vehicle that—

23 “(A) in the case of a medium duty vehicle,  
24 has a gross vehicle weight rating of more than  
25 8,500 pounds but not more than 14,000  
26 pounds; and

1           “(B) in the case of a heavy duty vehicle,  
2           has a gross vehicle weight rating of more than  
3           14,000 pounds;”.

4 **SEC. 9406. INCLUSION OF ELECTRIC DRIVE IN ENERGY**  
5 **POLICY ACT OF 1992.**

6           Section 508 of the Energy Policy Act of 1992 (42  
7 U.S.C. 13258) is amended—

8           (1) by striking “The Secretary” in subsection  
9           (a) and inserting “(1) The Secretary”; and  
10           (2) by adding at the end of subsection (a) the  
11           following:

12           “(2) Not later than January 31, 2009, the Secretary  
13           shall allocate credit in an amount to be determined by the  
14           Secretary for acquisition of—

15           “(A) a hybrid electric vehicle;

16           “(B) a plug-in hybrid electric vehicle;

17           “(C) a fuel cell electric vehicle;

18           “(D) a neighborhood electric vehicle; or

19           “(E) a medium-duty or heavy-duty electric, hy-  
20           brid electric, hybrid hydraulic, or plug-in hybrid elec-  
21           tric vehicle.”; and

22           (3) by adding at the end the following:

23           “(e) DEFINITIONS.—In this section:

24           “(1) FUEL CELL ELECTRIC VEHICLE.—The  
25           term ‘fuel cell electric vehicle’ means an on-road or

1 nonroad vehicle that uses a fuel cell (as defined in  
2 section 803 of the Spark M. Matsunaga Hydrogen  
3 Research, Development, and Demonstration Act of  
4 2005 (42 U.S.C. 16152).

5 “(2) HYBRID ELECTRIC VEHICLE.—The term  
6 ‘hybrid electric vehicle’ means a new qualified hybrid  
7 motor vehicle (as defined in section 30B(d)(3) of the  
8 Internal Revenue Code of 1986).

9 “(3) MEDIUM-DUTY OR HEAVY-DUTY ELECTRIC,  
10 HYBRID ELECTRIC, OR PLUG-IN HYBRID ELECTRIC  
11 VEHICLE.—The term ‘medium-duty or heavy-duty  
12 electric, hybrid electric, or plug-in hybrid electric ve-  
13 hicle’ is an electric, hybrid electric, or plug-in hybrid  
14 electric motor vehicle greater than 8,501 pounds  
15 gross vehicle rating.

16 “(4) NEIGHBORHOOD ELECTRIC VEHICLE.—  
17 The term ‘neighborhood electric vehicle’ means a 4-  
18 wheeled on-road or nonroad vehicle, with a top at-  
19 tainable speed in 1 mile of more than 20 mph and  
20 not more than 25 mph on a paved level surface, that  
21 is propelled by an electric motor and on board, re-  
22 chargeable energy storage system that is recharge-  
23 able using an off-board source of electricity.

24 “(5) PLUG-IN HYBRID ELECTRIC VEHICLE.—  
25 The term ‘plug-in hybrid electric vehicle’ means a

1 light-duty, medium-duty, or heavy-duty on-road or  
2 nonroad vehicle that is propelled by any combination  
3 of—

4 “(A) an electric motor and on-board, re-  
5 chargeable energy storage system capable of op-  
6 erating the vehicle in intermittent or continuous  
7 all-electric mode and which is rechargeable  
8 using an off-board source of electricity; and

9 “(B) an internal combustion engine or  
10 heat engine using any combustible fuel.

11 “(f) AUTHORIZATION OF APPROPRIATIONS.—There  
12 are authorized to be appropriated to carry out this section  
13 such sums as are necessary for each of fiscal years 2008  
14 through 2013.”.

15 **SEC. 9407. NEAR-TERM ELECTRIC DRIVE TRANSPORTATION**  
16 **DEPLOYMENT PROGRAM.**

17 (a) REVOLVING LOAN PROGRAM.—

18 (1) IN GENERAL.—The Secretary shall establish  
19 a revolving loan program to provide loans to eligible  
20 entities for the conduct of qualified electric transpor-  
21 tation projects.

22 (2) CRITERIA.—The Secretary shall establish  
23 criteria for the provision of loans under this sub-  
24 section.

1 (b) MARKET ASSESSMENT AND ELECTRICITY USAGE  
2 PROGRAM.—

3 (1) IN GENERAL.—The Administrator of the  
4 Environmental Protection Agency, in consultation  
5 with the Secretary and private industry, shall carry  
6 out a program—

7 (A) to inventory and analyze existing elec-  
8 tric drive transportation technologies and hy-  
9 brid technologies and markets; and

10 (B) to identify and implement methods of  
11 removing barriers for existing and emerging ap-  
12 plications of electric drive transportation tech-  
13 nologies and hybrid transportation technologies.

14 (2) ELECTRICITY USAGE.—The Secretary, in  
15 consultation with the Administrator of the Environ-  
16 mental Protection Agency and private industry, shall  
17 carry out a program—

18 (A) to develop systems and processes—

19 (i) to enable plug-in electric vehicles  
20 to enhance the availability of emergency  
21 back-up power for consumers; and

22 (ii) to study and demonstrate the po-  
23 tential value to the electric grid of using  
24 the energy stored in the on-board storage

1 systems to improve the efficiency of the  
2 grid generation system; and

3 (B) to work with utilities and other inter-  
4 ested stakeholders to study and demonstrate  
5 the implications of the introduction of plug-in  
6 electric vehicles and other types of electric  
7 transportation on the production of electricity  
8 from renewable resources.

9 (3) OFF-PEAK ELECTRICITY USAGE GRANTS.—

10 In carrying out the program under paragraph (2),  
11 the Secretary shall provide grants to assist eligible  
12 public and private electric utilities to conduct pro-  
13 grams or activities to encourage owners of electric  
14 drive transportation technologies—

15 (A) to use off-peak electricity; or

16 (B) to have the load managed by the util-  
17 ity.

18 (c) DEFINITION OF QUALIFIED ELECTRIC TRANS-  
19 PORTATION PROJECT.—In this section, the term “quali-  
20 fied electric transportation project” includes a project re-  
21 lating to—

22 (1) ship-side or shore-side electrification for  
23 vessels;

24 (2) truck-stop electrification;

25 (3) electric truck refrigeration units;

1           (4) battery-powered auxiliary power units for  
2 trucks;

3           (5) electric airport ground support equipment;

4           (6) electric material/cargo handling equipment;

5           (7) electric or dual-mode electric freight rail;

6           (8) any distribution upgrades needed to supply  
7 electricity to the qualified electric transportation  
8 projects; and

9           (9) any ancillary infrastructure, including panel  
10 upgrades, battery chargers, in-situ transformer, and  
11 trenching.

12       (d) AUTHORIZATION OF APPROPRIATIONS.—There  
13 are authorized to carry this section such sums as may be  
14 necessary.

15 **SEC. 9408. STUDYING THE BENEFITS OF PLUG-IN HYBRID**  
16 **ELECTRIC DRIVE VEHICLES AND ELECTRIC**  
17 **DRIVE TRANSPORTATION.**

18       (a) STUDY.—

19           (1) CITY CARS.—Not later than 1 year after the  
20 date of enactment of this section, the Secretary of  
21 Transportation in consultation with the Secretary of  
22 Energy and appropriate Federal agencies and inter-  
23 ested stakeholders in the public, private and non-  
24 profit sectors, shall study and report to Congress on  
25 the benefits of and barriers to the widespread use of

1 a potentially new class of vehicles known as city cars  
2 with performance capability that exceeds that of low  
3 speed vehicles but is less than that of passenger ve-  
4 hicles, and which may be battery electric, fuel cell  
5 electric, or plug-in hybrid electric vehicles. Such  
6 study shall examine the benefits and issues associ-  
7 ated with limiting city cars to a maximum speed of  
8 35 mph, 45 mph, 55 mph, or any other maximum  
9 speed, and make a recommendation regarding max-  
10 imum speed.

11 (2) AUTHORIZATION OF APPROPRIATIONS.—

12 Such sums as may be necessary are authorized to be  
13 appropriated to carry out this subsection.

14 (b) DEFINITIONS.—In this section—

15 (1) NONROAD VEHICLE.—The term “nonroad  
16 vehicle” has the meaning given that term in section  
17 216 of the Clean Air Act (42 U.S.C. 7550)), or vehi-  
18 cles of the same classification that are fully or par-  
19 tially powered by an electric motor powered by a fuel  
20 cell, a battery, or an off-board source of electricity.

21 (2) PLUG-IN ELECTRIC DRIVE VEHICLE.—The  
22 term “plug-in electric drive vehicle” means a means  
23 a light-duty, medium-duty, or heavy-duty on-road or  
24 nonroad battery electric, hybrid or fuel cell vehicle

1 that can be recharged from an external electricity  
2 source for motive power.

3 (3) PLUG-IN HYBRID ELECTRIC VEHICLE.—The  
4 term “plug-in hybrid electric vehicle” means a light-  
5 duty, medium-duty, or heavy-duty on-road or  
6 nonroad vehicle that is propelled by any combination  
7 of—

8 (A) an electric motor and on-board, re-  
9 chargeable energy storage system capable of op-  
10 erating the vehicle in intermittent or continuous  
11 all-electric mode and which is rechargeable  
12 using an off-board source of electricity; and

13 (B) an internal combustion engine or heat  
14 engine using any combustible fuel.

## 15 **Subtitle F—Availability of Critical** 16 **Energy Information**

### 17 **SEC. 9501. FINDINGS.**

18 The Congress finds that—

19 (1) the Energy Information Administration’s  
20 data is critical not merely for analysis of the role of  
21 energy in our economy and environment, but for the  
22 effective functioning of domestic and international  
23 energy markets.

24 (2) Federal and State policymakers rely on the  
25 Energy Information Administration to collect and

1 report State level energy information needed for en-  
2 ergy policymaking, compliance with Federal and  
3 State mandates, and for purposes of emergency en-  
4 ergy preparedness and response;

5 (3) as policymakers consider and implement  
6 policies to cut greenhouse gas emissions, accurate,  
7 timely, and comparable State energy information be-  
8 comes even more important;

9 (4) new and expanded sources of information  
10 about energy demand and supply have become avail-  
11 able and need to be incorporated in the Energy In-  
12 formation Administration's data and analysis func-  
13 tions;

14 (5) the Energy Information Administration  
15 needs to maintain and enhance its ability to collect,  
16 process, and analyze data while confronting broader  
17 demands for information in greater detail; and

18 (6) budget and personnel constraints have  
19 forced the Energy Information Administration to  
20 curtail surveys relied upon by energy and financial  
21 markets and could further defer important improve-  
22 ments in the scope and quality of resulting informa-  
23 tion.

1 **SEC. 9502. ASSESSMENT OF RESOURCES.**

2 (a) 5-YEAR PLAN.—The Administrator of the Energy  
3 Information Administration shall establish a 5-year plan  
4 to enhance the quality and scope of the data collection nec-  
5 essary to ensure the scope, accuracy, and timeliness of the  
6 information needed for efficient functioning of energy  
7 markets and related financial operations. Particular atten-  
8 tion shall be paid to restoring data series terminated be-  
9 cause of budget constraints, data on demand response,  
10 timely data series of State-level information, improve-  
11 ments in the area of oil and gas data, and the ability to  
12 provide data mandated by Congress promptly and com-  
13 pletely.

14 (b) SUBMITTAL TO CONGRESS.—The Administrator  
15 shall submit this plan to Congress detailing improvements  
16 needed to enhance the Energy Information Administra-  
17 tion’s ability to collect and process energy information in  
18 a manner consistent with the needs of energy markets.

19 (c) GUIDELINES.—The Administrator shall—

20 (1) establish guidelines to ensure the quality,  
21 comparability, and scope of State energy data, in-  
22 cluding data on energy production and consumption  
23 by product and sector and renewable and alternative  
24 sources, required to provide a comprehensive, accu-  
25 rate energy profile at the State level;

1           (2) share company-level data collected at the  
2           State level with the State involved, provided the  
3           State has agreed to reasonable guidelines for its use  
4           adopted by the Administrator;

5           (3) assess any existing gaps in data obtained by  
6           and compiled by the Energy Information Adminis-  
7           tration; and

8           (4) evaluate the most cost effective ways to ad-  
9           dress any data quality and quantity issues in con-  
10          junction with State officials.

11 The Energy Information Administration shall consult with  
12 State officials and the Federal Energy Regulatory Com-  
13 mission on a regular basis in establishing these guidelines  
14 and scope of State level data, as well as in exploring ways  
15 to address data needs and serve data uses.

16          (d) ASSESSMENT OF STATE DATA NEEDS.—The Ad-  
17 ministrator shall provide an assessment of these State-  
18 level data needs to the Congress not later than 1 year after  
19 the date of enactment of this Act, detailing a plan to ad-  
20 dress the needs identified.

21          (e) AUTHORIZATION OF APPROPRIATIONS.—There  
22 are authorized to be appropriated to the Administrator for  
23 carrying out this section, in addition to any other author-  
24 izations—

25           (1) \$10,000,000 for fiscal year 2008;

- 1           (2) \$10,000,000 for fiscal year 2009;
- 2           (3) \$10,000,000 for fiscal year 2010;
- 3           (4) \$15,000,000 for fiscal year 2011;
- 4           (5) \$20,000,000 for fiscal year 2012; and
- 5           (6) such sums as are necessary for subsequent
- 6           fiscal years.

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